THE

AMERICAN FARMER.

"O FORTUNATOS NIMIUM SUA SI BONA NORINT
"AGRICOLAS." . . . . . *Virg.*

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MEMOIR OF JOHN S. SKINNER.

A tribute of respect to the oldest laborer in the field of agricultural literature from the youngest! It is meet and proper that we who are just entering on the path trodden for more than thirty years by the way-worn and weary veteran, who now rests from his labors,—that we, who follow in his footsteps and profit by his pioneer labors, should carve one line upon his tomb-stone, in grateful acknowledgement of our obligation.

What though the noble heart, that ever throbbed with quicker pulsation at the voice of kindness, is stilled! What if the eye, that would have beamed through the gathering tear-drops at a tone of sympathy, has been closed by the icy hand of death! What though the tongue, else eloquent of thanks, is chained and still! What matters this, or all of these, to our debt—our debt to the dead!

No marble monument, erected by those whom he faithfully served for thirty years, may mark the spot where his remains repose; no gathering of thousands and public eulogy may express to the world the estimation in which he was held; but will those in whose cause he spent the stronger years of his life—the farmers of America—will they reap the fruit of his labors, and decline to pay him his hire? His was the first voice that was heard claiming for Agriculture its rights as a Science. His light gleamed alone, but brightly and steadily, amid the dark mists of Ignorance and Prejudice; and even now, now when the land is illumined by a thousand, that same torch, in other hands, is burning and blazing with a pure and brilliant flame. Over thirty years ago, our buried brother established the "Old American Farmer," at Baltimore; the first periodical in America, which devoted its columns to agricultural intelligence and information; the ancestor of all those now living. Is the voice of the Press gone, that no one has heard a whisper from them for any testimonial of respect to the oldest Agricultural Editor in America! True, he has gone beyond our reach, and beyond our sympathy; his Father alone can reward him for the "deeds done in the body;" but the partner who shared his sorrows and his toils remains with us, with a scanty pittance saved from the wreck, for her support. Can we not pay to her what we owe to him?

Let the Farmers' voice be heard. What say they? Will any second our motion, that throughout the land, we should in some palpable manner and in concert with one another, express our respect for the departed by succoring the surviving? Will any one propose a plan?

We subjoin a sketch of Mr. Skinner's life, prepared at our request, by one who knew him well and loved him. It is a brief recital of services rendered, without any attempt at eulogy, and without dwelling, as friends might, upon the lovely traits of character, which caused Mr. Skinner to be loved and respected throughout the Union.—*Ed. Jour. of Agr.*

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John Stuart Skinner was born on the 22nd day of February, 1788. He was a lineal descendant of Robert Skinner, who emigrated from England early in the seventeenth century, and became a large landed proprietor on that portion of the Peninsula between the waters of the Chesapeake Bay and Pawtuxent river, now Calvert county, in the State of Maryland, where he died in the year 1786. (Vide note to General Wilkinson's memoirs.)

The great-grandson of Robert Skinner, (Frederick Skinner,) the father of J. S. Skinner, was one of the most respected and popular men in the county, which even then contained an intelligent and refined society. He departed this life 2nd December, 1809. From father to son, down to the subject of the present notice, they have all been tobacco planters, and the original homestead is still in possession of a member of the family, Mr. Levin Skinner, a nephew of the late John S. Skinner.

John S. Skinner received his early education at the country schools in the neighborhood of his father's house; thence he went to Charlotte Hall, St. Mary's County, Maryland, long noted as the best school in the Middle States. At the age of 18, Mr. S. went to Annapolis, the seat of government of the State, and studied law with the late Chancellor Johnson, the father of the Hon. Reverdy Johnson. Before he was of age, he was appointed notary public by Governor Wright, who overcame the objections made by some members of the Council to Mr. Skinner's appointment on the score of his youth. He was three or four years elected reading clerk to the Legislature. His studies finished, he was admitted to the bar, and at 21 commenced the practice of the law. On the 10th of March, 1812, Mr. Skinner was married to Elizabeth G. Davies, of Baltimore, by whom he had three sons, one of whom only, survives his father. His second

son died in Louisiana in 1847, leaving a wife and two children. During the last war with England, Mr. S. was appointed, by Mr. Madison, government agent to negotiate with the British forces in the Chesapeake Bay. His associations with the superior officers of the fleet were not confined to mere official courtesies, but ripened into friendship; and at intervals more or less distant, up to the time of the decease of Admirals Cockburn and Barry, the most friendly terms were exchanged between them. Other friends were also made on board the British fleet.

In the fall of 1813, Mr. Skinner moved to Baltimore, and when the Flotilla was launched, he was appointed Purser. He was afterwards appointed Post Master of Baltimore, by Mr. Madison, which place he held for twenty-two years, and until removed by Mr. Van Buren. Mr. S. was a great favorite with Presidents Madison and Monroe, having refused from the former a Judgeship in the West, and the post of Secretary of State in Arkansas. At the approach of the British forces upon Washington, Mr. S. rode ninety miles in the night, and first announced to the government their march, after having wa ned the public authorities a week prior to their setting out.

Mr. Skinner was an ardent admirer and lover of all sorts of rural employments and internal improvements. His whole heart was wrapped up in the improvement of his country, its agricultural interests in particular. Thinking his native state behind those of the North and East in its agricultural progress, he determined to use all his energies and talents to arouse his fellow citizens to emulate their neighbors; and established the first agricultural paper that was ever issued in the United States, almost exclusively devoted to the farmers' interest, the old AMERICAN FARMER. The first number appeared on the 2nd of April, 1819, without one single subscriber. It proved in the sequel, to be one of the most useful, and probably the most profitable journal of the kind ever published in the country. The subscription was $4.00 a year; he carried it on for several years, and afterwards sold it for $20 000. No pains were spared to make the "Farmer" worthy of the cause, and many essays from the best writers in the country appeared in its columns. Even now it is considered a text book by many of our farmers. He was the first to propose and get up the agricultural shows in the Middle and Southern States. Now they have Fairs in almost every county, and it is admitted by all they are of great utility.

To the American Farmer succeeded the Turf Register, which was also sold for a good price.

On the election of General Harrison, Mr. Skinner was appointed third Assistant Postmaster General. In this important post he saved to the Government, as the records will show, $200,000, by curtailment of expenditure in his bureau, and yet was popular with the mail contractors. Mr. S. was removed from this post by Mr. Cave Johnson, Postmaster General under Mr. Polk. Mr. Skinner's unremitting industry, and close confinement, while in the General Post Office, dreadfully impaired his health, and brought on a giddiness of the head, which caused him very suddenly to lose his hearing. This was not only a dreadful privation to himself, but a very great loss to his friends and acquaintances, for there were few more blessed with conversational abilities than he. He then became Editor of the Farmer's Library and Agricultural Journal, for Messrs. Greely & McElrath; but this work was too costly, and possibly of too elevated a character to become popular, and it was discontinued. Then, by the advice of his friend, Mr. Henry C. Carey, and by his assistance, and that of his Eastern friends, he started "The Plough, the Loom, and the Anvil," a journal, which, up to this time, has been gaining rapidly in public estimation.

Mr. S. was the intimate and confidential friend of the good LaFayette, and corresponded with him for years before they met. This was owing to the fact of Mr. Skinner being the nephew and namesake of General LaFayette's bosom friend and companion in arms, Col. Jack Stuart. Mr. S. transacted all LaFayette's business in this country, both for father and son, and after the death of both, continued to do so for the heirs, until the melancholy accident which caused his own death. Mr. S. for many years maintained an extensive correspondence with distinguished men, both at home and abroad, and at the time of his death was a member of many of the foreign Agricultural Societies. He also received a vote of thanks from the Chilian Congress, for his services rendered during their struggle for independence. Mr. Skinner had talents of the highest order, and had he devoted himself to his profession, the Law, he must have risen to great eminence; but he was drawn from it by his great love of Agricultural pursuits. To cultivate and improve the soil and raise the character of the Farmer, was the great object of all his labors. In private life, as a *husband*, a *father*, and a *master, he was devoted, affectionate, kind, and too indulgent*. He was hospitable to a fault, generous, unsuspicious, and confiding. In money matters he was as simple as a child. He was charitable as the day, and it might with truth be said of him, "his left hand knew not what his right did." Good, noble-hearted man, take him all in all, it will be a long time before we look on his like again.

RELATIVE VALUE OF LIME, ASHES, GUANO.—To the friend at *Alexandria*, who asks us to state "*our opinion as to the relative value and effects of* 100 *bushels of Ashes, the same of Lime, and of* 400 *weight of Guano, on an acre of land*,"—We reply, that these manures are different in their natures and properties,—the two first being mineral, and the latter animal manures—that the effects of the two former would be more lasting, the latter more active and productive of immediate good results, though not so permanent,—that the two former, however, would have to be aided by organic manures of some kind, as neither could, of itself, furnish the nutritive food to the plants. If the soil, however, abounded in vegetable and animal remains, they would render them available by decomposing and preparing them to be imbibed as food by the plants.

To produce *immediate* and *lasting* effects, it would be well for our friend to mix 200 lbs. of guano, and 1 bushel of salt, intimately together, *per acre*, broadcast, plough the mixture in, harrow, then spread 50 bushels of ashes per acre, and harrow them in. Except the price of the additional labor, the cost will be about the same as for 400 pounds of guano, while its good effects would be much more permanent.

"*Lucerne.*"—The paper, promised us by a correspondent at Richmond, on the cultivation of Lucerne, has been received too late for this No.

WORK FOR THE MONTH.

APRIL.

As the time has come for *action*, we shall at once proceed to point out a few of the many things demanding prompt attention

On the Farm.

Hauling out manure.—This is always an onerous job, but it is one that should be executed with a good grace, as the product of the land depends upon the crop being fed; for manure is the parent of crops. Having accumulated the manure, it should be the study of the agriculturist, to prevent the loss of its fertilizing virtues while being removed from the compost heaps, manure piles, or cattle yards, or while exposed on the fields before being ploughed in; and as this can be effected at a trifling expenditure of money and labor, we will briefly state how this loss can be prevented.

At the time of breaking the bulk of the manure, intimately mix with every 20 double-horse-cart loads of it, *either* of the following substances, in the quantities named,—1 bushel of plaster, 5 bushels of salt, 20 bushels of finely pulverized charcoal, or sprinkle weak solutions of copperas and water, or of sulphuric acid and water, over the manure as shoveled over to be loaded into the cart. Twenty or thirty pounds of Copperas, or as many pounds of Sulphuric acid, would be sufficient to impart the fixing property to a hogshead of water, to be used for such purpose. If either of these agents be used at the time of hauling out the manure, the loss of the enriching gases will be trifling, from the time of removal to that of ploughing it in; whereas, if hauled out and exposed, without such precautions being observed, much of the fertilizing properties of the manure will escape by evaporation, and its value be greatly deteriorated. So firmly convinced are we in the efficacy of treating manure in the way we have indicated, that we look upon it as a truth, that it would operate as a saving of 33⅓ per cent. This may be said to be mere opinion; but it is not so; for we have practically demonstrated its truth, and we do know, that the labor bestowed on such mixing of manure, as well as the cost of the materials recommended to be applied, will prove, on trial, to be economical expenditures of both the one and the other.

Barley.—If you have a fertile loamy soil, seed it to Barley. But before you commit your seed to the ground, be sure that you have ploughed your land thoroughly and deeply; that you have harrowed and rolled it until the tilth is perfectly fine; for it is useless to put Barley, or, indeed, any other crop, into the ground, without previously subjecting it to the nicest preparation. And as for expecting a remunerative crop from land that is merely scratched and skimmed, it is as unreasonable as it is unphilosophic. The plants must have a deep bed to pasture in, or their supply of food will be restricted—will be inadequate to their demands and wants. Besides, in proportion to the depth of soil, so will be its capacity for ensuring exemption from the bad effects of drought, as well as from the excess of moisture from rains.

Barley Soil.—The soil in which Barley most delights, is a fertile deep loam, which should be neither too dry, nor too wet. Such a soil, which, when properly prepared, would bring 20 bushels of Wheat, would, if seeded to Barley, bring 30 or 40 bushels per acre. If the soil be not in good heart, it must be assisted by manure; for a good crop of Barley cannot be calculated upon when raised on unmanured, poor ground.

Manure for Barley.—10 loads of marsh-mud, river mud, or mould and leaves from the woods, 5 loads of barn-yard manure, and 5 bushels of ashes, mixed together, and left in bulk two or three weeks, and then spread broadcast over the land and ploughed in, would manure an acre of ground for barley, and enable you to sow clover and grass seeds on it.

200 lbs. of Guano and 50 lbs. of Plaster, or 10 bushels of bone-dust and 10 bushels of ashes, mixed together, and treated as above, would be sufficient for an acre.

Quantity of Seed per Acre.—Two bushels of barley should be seeded on each acre.

Early Potatoes.—If you did not get your early potatoes in last month, get them in as early this month as possible.

Spring Wheat.—This grain should be got in as early this month as the frost is out of the ground, and the seed should be soaked in brine and dried with lime, before being sown, to destroy the germs of smut, to which disease, as far as our experience goes, it is much disposed. We are not the advocate of growing Spring Wheat this side of Pennsylvania or New York; for our experience taught us that it was a very uncertain crop in Maryland, and we believe that it would prove so in any of the more southern states.

Oats.—This crop should be got in, as soon as, from the absence of frost, the ground can be put in good order. As we were full last month in our remarks upon the growth of this crop, we will not repeat them here; but refer the reader to what we then said; contenting ourself with the observation, that a large crop of oats cannot be grown, unless there be food in the soil, and the soil itself be deeply ploughed, and thoroughly pulverized.

Artichokes.—Upon the culture of this tuber, our views were too fully given last month, to need repetition; but we will give it as the honest conviction of our judgment, after much study and reflection, that its cultivation, to the extent of a few acres, would be highly conducive to the interest of every farmer.

Lucerne.—If you have an acre of land that you can spare for an experiment in the growth of this excellent provender-plant—manure it heavily, plough it 8 inches deep, harrow and roll it until it is in fine tilth; then sow thereon 2 bushels of oats, harrow and cross-harrow them in, then spread fifty bushels of lime, or the same quantity of ashes over the lot, harrow that in, and then sow 20 lbs. of Lucerne seed, *broadcast*, harrow *very lightly*, and complete your work, by rolling the ground. By so doing, you cannot fail to be rewarded by a large crop of oats, and of laying the ground work of good crops of lucerne for several years; provided you top-dress every spring, harrow, and roll.

After you have cut and secured your crop of oats, sow 1 bushel of plaster and 2 bushels of salt, per acre, over your lucerne; this precaution will prevent drought from killing out the lucerne: you must be careful not to let any stock run on your patch of lucerne this season: if it should become infested with weeds, set some of your little tackers to pull them up by hand.

Fences.—Are you sure that your fences are all in good order—in such order as to resist the assaults of stock? If you are, you may rest secure; but if you have the least suspicion, that there may be

some weak points, *go yourself*, forthwith, and make a strict personal examination, and wherever there are defective panels, have them repaired, or replaced by new ones. A few days thus spent, now, may save you from losses and depredations throughout the season, besides keeping you in good temper with your neighbors; for among all the causes which go to destroy the kind feelings and friendships of neighborhoods, there is none more prolific of mischief, than are the trespasses of stock.

Hemp and Flax.—It is time that you were preparing the land you intend to put in hemp, or flax. Each of these plants require a deep, rich loamy soil. The land should be deeply ploughed, and brought to fine tilth before being seeded. It should undergo several harrowings at intervals of some days to destroy weeds, as their seeds may begin to sprout.

Working Animals.—The period has arrived when the most exhausting drafts are made upon these creatures—when they are called upon, day after day, to exert their utmost powers—in the performance of the necessary labors of the field. Therefore, interest, as well as humanity, should dictate, that they be well fed, and attended to with care. Their food should be generous, and given to them at regular hours; for regularity is almost as essential as food itself, in keeping up, in its wholeness and integrity, the physical powers. And we are very certain, that if their grain were chopt or ground, and the hay cut, at least for the night feed, that a considerable saving would be effected, while the animal would be the better able to digest his allowance, have more time for rest, be more refreshed in the morning, and be the better able to renew his labors of the ensuing day. The stables should be cleaned out daily, and every animal should have his stall well bedded, in order that his nights may be truly periods of rest. His hide should be daily cleansed, either with the curry-comb, or card, and be rubbed with a wisp of straw. Attention should be strictly paid to watering, and to giving the animal salt, or salt, ashes, and lime, twice or thrice a week, in the quantity, to each, of one or two ounces.

Stock of all kinds should receive kind treatment at this season, and every owner of them should so make his arrangements, as to always have ample supplies of provender to feed his stock well throughout this month.

Milch Cows.—Besides hay, or fodder, see that these also receive rich slop feed: meal of some kind mixed with cut hay, or straw and water has a two-fold operation in it; it contributes to the pail, and to the comfort of the animal. These, as well as all the other animals, should be salted, or receive the salt, lime and ashes mixture, twice a week.

Upon the treatment of *farm stock*, Gov. Everett, of Massachusetts, at a late discussion at one of the meetings held by the members of the Massachusetts legislature advanced the following beautiful and truly christian sentiments:—

"Agricultural Discussions.—Tuesday evening, Feb. 17th. Subject—*Farm Stock.* Ex. Gov. Everett in the Chair.

Gov. E. prefaced the discussion with a brief but beautiful speech, of which we regret it is in our power to give only a passing notice. He called attention to the fact that plants and animals were dependent on the soil for their formation, and showed that the laws of chemistry were involved in their structure. He spoke of the mystery which envelopes the principle of life, both vegetable and animal. Man can make an instrument which will guide him across the ocean, or one by which his eye may traverse the regions of space and note the movements of bodies which compose the universe, but he cannot make a blade of grass. Animal life is still higher, and is the greatest mystery man can contemplate. In regard to our domestic animals, there was a time when they were all wild—that was presumed to be their natural state. The power which guided man to the selection of those which were susceptible of domestication, and would render him the greatest aid, must have been above his own. He noticed the similitude between man and other animals; the resemblance in anatomical structure, nervous system, instincts, &c. and from these deduced important conclusions in reference to man's duty to animals under his control. Their health and comfort should be regarded; they should never be subjected to unnecessary pain. He thought kind treatment of domestic animals should be a part of every man's religion. For himself, he was so fully impressed with this idea, that he should prefer taking the place of the rude Indian, who cherishes the belief that in the other world

"His faithful dog shall bear him company,"

than that of the nominal Christian, who imposes on his animals unnecessary hardship and abuse."

Poultry Houses.—If your poultry houses have not been cleaned this spring, have them thoroughly cleansed at once. Have every thing like filth removed from every part of the interior—white-wash the outside and inside of the nests—scrape the floor; and then white-wash the inner-walls, and when that is done give the outside two good coats of white-wash.

Out-buildings.—If these have not been already cleansed and white-washed, they should be, and that quickly—and while you are making these look almost as good as new, don't forget that nothing adds more to the appearance of one's lane, than a good coat of white-wash applied to the fences.

Liming and Marling.—All whose lands require the application of lime, should bear in mind, that there is no better time to apply lime, or marl, than when they are preparing their ground for the corn crop. Lime we hold to be the basis on which all improvement of impoverished soils should be built, as without the calcareous ingredient be in the soil, nutritive manures will fail to exert their full effect, nor will the soil be in that condition to give energy to its absorbent powers, or to dispense its food to the growing plants.

We are not the advocate of heavy applications of lime; *first*, because we do not believe them essential, and *secondly*, because light dressings are less expensive; but we are the warm and decided advocate of the practice of liming all land that may need it; for among the substances which are consumed by plants, there is none more universally indulged in by them than lime; nor shall we moot the question, whether lime is, or is not, manure, it being sufficient for us to know, that it is to be found in the ashes of almost every thing that grows; hence we conclude, that, if it were not essential to vegetable life and vigor, the plants would not partake of it, nor would its presence be so universal. And while upon this subject, we will repeat, in substance, what we have years and years ago maintained, that we have no dread of magnesian lime—that, unless applied in excess, it can do

no harm, but will assuredly do much good, as magnesia, which is looked upon with so much horror by many, enters more or less largely into the food of many plants, and especially into that of Indian corn. But pound for pound, we should prefer oyster-shell lime, above all others, for the reason, that it has in it a very notable percentage of phosphate of lime, that substance which imparts to bone-dust so much of its power and efficiency—a substance which, by the bye, if properly looked for, will be found in most, if not all shell-marls—and to which, much of its active virtues are to be referred.

CULTURE OF CORN.

Corn Planting.—The time for commencing this work differs so much in our expanded country, that it is impossible to fix upon any particular period that would be universally proper; for although the corn is already up and flouting its luxuriant foliage to the breeze, in many of the states in which our journal circulates, it will not be time in others to plant for some weeks. Even in our own state, no particular day can be set down as the proper one; for such is the effect produced by a few leagues of location, that a difference of several weeks exists as to the proper time for planting, in remote points of our own limits. But although it may be considered too early for planting over a vast range of country, it is full time everywhere for farmers and planters who cultivate this crop, *to be looking about them for manure to grow it with;* for really it is folly, unless one's soil is really rich in organic as well as inorganic elements, to expect a large crop of corn, without giving it plenty of manure. The very structure and size of the plants—their habits and rapid growth—would tell us that such is the fact, if costly experience had not long since convinced all observing corn-growers of the truth of what we here affirm. Without the elements to form the grain out of—to sustain the stalk in its wholeness, and enable it to elaborate and perfect its seed—be in the soil, disappointment must necessarily follow every attempt to grow large, or even comparatively profitable crops of corn. If what we affirm be true, and we believe every candid, thinking farmer, will say that it is, then it should be the duty of every one, who desires to make corn-growing a profitable business, to make the accumulation of manure a chief principle in his system of farming. It is not sufficient for any one to say, that he has not the time to devote to such object—for it is alike his interest, and his duty, to take the time. On many farms—especially those having the advantage of water fronts—the materials for making manure are so abundant, that it would be an object to keep a hand and team the year round, engaged in collecting them. On such estates, substances are to be found, in such abundance, that it would seem to be a sin, not to avail one's-self of their enriching properties, as there can be no question, but that Providence placed them there, that man might be induced to appropriate them to the uses of his crops. We were on a visit last summer at a friend's, whose estate fronts the bay shore, and creeks making out of it, for upwards of two miles. His shores were lined at different points, with thousands of loads of the very best kinds of materials for composting into manures; and yet he had never used any of them; and the only reason he had to give, was, that he could not spare the time necessary to collect them, as if the *time* and labor which might be thus appropriated, would not result in more profit to him, than any other time and labor to be bestowed on his farm. We left him with the promise, that he would set his hands to collecting and composting them the following fall. If he did so, we should like to hear what results they may produce on his crops the present season. If he followed our advice, as to the mode of composting the rough materials on his shores, with ashes and plaster, or with barn-yard manure and plaster, we feel very sure, that the effects will so tell upon the products of his corn crop, the present year, as to make him a believer in the faith which teaches, that the first duty of a tiller of the soil, is to accumulate manure. Neither man nor beast can effectively labor, unless he be well fed, so is it with the soil—unless the substances abstracted in the growing of crops, be replaced—be re-supplied—exhaustion, impoverishment, must be the inevitable consequence. In this replacement, and re-supply, one need not be so very choice in his selection, for all animal—all vegetable bodies—may be usefully and profitably, put in the compost heap, if you apply the proper *leaven* to excite fermentation and decay. One load of barn-yard or stable manure, if it be good—if it shall have been properly taken care of—or 5 bushels of ashes, will be sufficient to convert two loads of marsh, river or creek mud, or wood's-mould and leaves, or ditch or road-scrapings, or the earth from head-lands, or fence corners and sides, into good manure. To every twenty loads of such materials, one bushel of plaster, or from 2 to 5 bushels of salt, whichever be the most convenient or economical, should be added. Over every layer of the coarse material, plaster, salt, or charcoal dust, should be spread, as the compost heaps are being formed, to arrest and economise the volatile principles of the substances, as they may be elaborated by the processes of the decay of the rough materials; for in all the substances we have named, and all others of a kindred nature, there are large percentages of nitrogenous matters—large percentages of those elements which, under the operation of decomposition, generate *ammonia*, that substance which gives to Guano so much of its active virtues—so much of its agricultural value. We do not wish to be understood as desiring to convey the idea, that, in the production of ammonia, the substances named by us, have anything like the same quantities in their composition, as are to be found in Guano; for such is neither our belief, nor our object; but, if applied in the quantities named by us, they will answer fully as well, as do the ordinary dressings of Guano given to an acre of land.—We believe, that 20 double-horse-cart-loads of compost, prepared as we have directed, would impart equal present benefit, as would a dressing of 2, 3 or 400 lbs. of guano; while its effects, in the melioration of the soil, would be much longer continued. We are aware, that the collecting of the materials, and the formation of such compost heaps will occupy considerable time. Be it even so; for time and money cannot be better applied and expended. We know situations, where one man and a team could collect twenty loads in a day, which would, with the additions we have named, manure an acre of land so that its yield would be double,—and certainly, no one will question the profitableness of such result.

While we are upon the subject of materials for forming manure, we desire to impress the value of one upon our readers, that almost every body neglects,—and however distasteful its name may sound upon the delicate ears of some, we will name

it; for, as no one need be ashamed of telling the truth, so should no one, who feels an interest in the welfare of the Agricultural community, permit any false notions of delicacy or taste, to deter him from proclaiming a great agricultural truth. We allude then, to the *Urine* made about the homestead and quarters. Is it saved? No! But it should be, and may be, without much labor, and with but very little expense. Having spoken of *Urine*, it behooves us to state the elements of which it consists.

According to *Berzelius*, 1000 lbs. of human urine consists of the following substances, in the quantities named:—

Urea*	30.10 lbs.
Lactic acid, lactate of ammonia, extractive animal matter	17.14
Uric acid*	1.00
Mucus	0.32
Sulphate of Potash	37.01
Sulphate of Soda	3.16
Phosphate of Soda	2.94
Muriate of Soda	4.45
Phosphate of Ammonia	1.65
Phosphate of Magnesia and lime	1.00
Muriate of Ammonia	1.50
Silicic Acid	0.03
Water	933.00
	1000

Here then, in the above analysis of Urine, we have all the elements which enter into the composition of the wheat plant, or, indeed, of any other of those plants which are cultivated by man, and so happily blended together, as to be—to use a trite phrase—already cut and dried, ready to be taken up by the plants. Why then, should it be wasted? And who, pray, thinks of saving it? Very few, indeed. And why not? Is it because it is too unimportant a matter in agricultural economy, to be worthy of consideration? If that be your opinion, you labor under a most egregious error, as we shall presently attempt to shew you. The theory is, that each pint of urine has in it the constituent elements necessary to make a pound of wheat: well then, as every healthy grown up human being, is presumed to excrete 3 lbs. of Urine daily, if such liquid voidings be saved, and appropriated to that purpose, it is competent to grow with this kind of the product of one man, per year, 1095 lbs., which is equal to 18¼ bushels of wheat. So, if we rely on theory as being correct—and we doubt it not,—it may be assumed, that the liquid evacuations of one individual, is sufficient to afford the necessary manure for an acre of land to be cultivated in wheat,—and, indeed, in almost any other crop. But suppose we reduce this estimated value, one-half, to make allowance for wastage, in various ways, and we will then still be able, by this means, and from this source, to manure half an acre of land for every healthy adult member of our families—and do it well—besides deriving a large additional supply of the enriching material, from the junior members of our households. Let us carry out this calculation to the entire population of our country, and what is the result? Theory gives the capacity to a pound of urine, of producing a pound of wheat, or that the quantity voided by one individual in a year, is sufficient to produce 18½ bushels of wheat,—then, as we have a population of 22 millions of human beings, if we assume, taking the old and the young together, that, in the aggregate, one-half the quantity of urine is annually produced, then there is enough made, to manure 11 millions of acres, or to produce 25,350,000 bushels of wheat per year, and yet, all this *home-made* guano, is *wasted*, as a thing utterly worthless, while every one, who can command the money, is investing it in the *foreign* article, which is not, intrinsically, a whit better.

*The Urea and Uric acid, will make as many pounds of ammonia.

Having spoken thus strongly of the value of Urine, we will state how we would manage to save it from deterioration—to preserve its animal parts from loss, by the evaporation of its volatile elements. Daily, as made, we would sprinkle plaster over it, stir it well, and then pour it on a collection of earthy matter, which we would have collected and placed in a convenient place for receiving daily additions of urine. Say, that 100 loads of marsh mud, wood's-mould, or kindred matters, were hauled into the barn-yard, and made up into a cone-like form, and that different parts of it were opened each day, to receive these deposits; in the course of a few months, the whole mass would be completely charged with the riches of the Urine, and be converted into a body of the most active fertilizing manure, as the ammoniacal elements of the Urine, would be seized upon and fixed by the Sulphuric acid of the plaster, form the sulphate of ammonia, and thereby, to a very great extent, be preserved from loss from escape in a gaseous form. The same conservative effect may be produced, by dissolving Epsom Salts, or Copperas in the Urine, or by mixing finely pulverized charcoal, or common salt with it. Either of which substances are excellent manures, when properly applied, and would prevent all offensive smell arising from the urine. It would be well to have the apex of the mould-pile covered by a few boards, if not under cover, to turn the rain and protect it from having its salts washed away.

In connection with Urine, we would have the soapsuds, made in the laundry, also poured upon the earth pile; for of a truth it is a most excellent and active manure. We say this, without regard to theory—which establishes its value—from a practical experience in their use.

We purpose now to return to the subject of corn-planting, and all matters akin to its cultivation.—As a basis to rear our superstructure upon, we will give analyses of the *inorganic* parts of the *grain*, *cob*, and entire plant, as also, of what quantities of matters are supposed to be abstracted from an acre of land by a fair crop of corn. By these lights we will be able to determine what manures we ought to use, and in what quantities, to grow an acre of corn, and how to keep the soil from deteriorating.

Analyses of the inorganic parts of the Grain, Cob and Stalks of Corn when ripe.

	Grain.	*Cob.*	Of the whole Plant, grain, stalks, cob, leaves, &c.
Carbonic acid,	0.850	9.445	
Phosphoric acid, with a little per oxide of iron,	49,210	13,105	14,550
Lime,	0.075	3.833	5,672
Magnesia,	17.600	6.745	6.617
Potash,	23.175	34.400	23.396
Soda,	3.605	11.495	
Sodium,	0.160		22.787

Chlorine,	0.295		7.096
Sulphuric acid,	0.515	1.366	10.970
Organic acids,	5.700		
	99.175		
Silicic acid,		10.320	75,980
Chloride of Sodium,		1.980	
Organic acids,		6.430	
Phos. per ox. iron,		.445	
Phosphates of iron, lime and magnesia,			17.042'

The above Analyses are by professor *Salisbury*, who is the author of the most minute series of Analyses of the corn plant, in all its parts, and stages of growth, ever made. Among his other tables, he gives the following, exhibiting the aggregate amount of the several inorganic bodies removed from an acre of ground by a corn crop:

TABLE

Showing the Quantities of inorganic substances abstracted from an acre by a crop of corn.

"Silicic acid,	189.040
Sulphuric acid,	53.569
Phosphoric acid in the grain and cobs,	25.799
Phosphates of iron, lime and magnesia in the straw and fodder,	72.066
Potash,	72.463
Soda,	99.463
Lime,	16.761
Magnesia,	24.506
Chlorine,	33.294
Organic acids,	12.203
	599.254 lbs."

Less by a fraction, than 600 lbs., in all.

Upon the above, professor Salisbury makes the following observations:—

"We see from the above, that the several inorganic bodies removed from the soil by a crop of maize, rank as follows: Commencing with the highest, silicic acid, soda, phosphoric acid and potash, sulphuric acid, magnesia and chlorine, lime and iron."

"The aggregate amount of inorganic bodies taken from an acre of land annually, by a stout crop of maize, is by no means as large as is generally supposed; and yet it is sufficiently so to exhaust the best soil in a brief period of years, of some of those bodies which act so essential a part in the constitution of the plant. The amount generally, would not much exceed 600 lbs. Indeed it would in a majority of cases fall short of this. In some instances, however, of an inordinately stout growth of some of the larger varieties, it might even go up to 1000 lbs., but such cases would rarely occur. 600 lbs. then may be assumed as the quantity ordinarily removed from an acre of land by a stout crop of maize; or what would be a better criterion to follow, 100 lbs. of inorganic matter for every ton of dry produce. Of this about ½d is silicic acid, 1.6 soda, 1.8 potash, 1.8 phosphoric acid, 1.12 sulphuric acid, 1.18 magnesia, 1.18 chlorine, and 1.18 lime and iron. The silicic acid is mainly removed by the straw, or leaves, sheaths and stalks. There is generally an abundance of this substance in the soil; it being only necessary to ensure the presence of a sufficiency of the alkalies to form with the acid enough of its soluble salts to meet the demands of the plant." * *

"The *potash* and *soda* enter quite largely into the composition of all parts of the plant; but more so into that of the stalks, grain and cobs than into the other portions. Soils although they ordinarily contain considerable of these two bodies, yet they generally have a quantity by far too small to supply the lavish demands of this plant for any great length of time." * *

"*Phosphoric acid* enters largely into the composition of the grain, and quite largely into that of the cob and stalk. It constitutes about 1.8 of the ash of the entire plant. Soils are commonly quite deficient in this acid; or at least they contain much less of it than almost any of the other inorganic bodies which enter into the composition of plants.

The quantity removed ordinarily from an acre of land annually by a good crop of maize, is from 60 to 75 lbs., or from 10 to 12 and 13 lbs. per ton of dry produce."

"*Sulphuric acid*, from the quantity taken away by a crop appears to be an essential ingredient of this plant. It enters more largely into the stalk, leaves and sheaths, than into the grain. From 45 to 60 lbs. are removed by the annual produce of an acre; or from 7½ to 11 lbs. per ton of dry plants."

Dana gives the following Organic Analysis:

"Fat forming principles, gums, &c.	88.43
Flesh forming principles, gluten, &c.	1.26
Salts	1.31
Water	9.
	100."

Looking at the preceding analyses, and taking professor *Salisbury's* table of the *inorganic* constituents removed by a crop of corn from an acre of land, as our guide—and perhaps it is safe to do so—we arrive at the conclusion,—that all manures for corn, ought, independent of their *organic* properties—*and they should be rich in these*—to have substances in them that will supply the following *inorganic* substances, viz.—*Sulphuric acid*—the quantity of this, abstracted, was a fraction less than 53 lbs., which, if there were none in the soil, —a thing not probable—could be supplied by a bushel and a half of plaster, or 100 lbs. of Epsom Salts; *phosphoric acid*, phosphates of iron, lime and magnesia, could be supplied by 4 bushels of bones and as many of ashes; *Potash*, could either be supplied by 100 lbs. of the potash of the shops, 200 lbs. of saltpetre, or by 16 bushels of unleached ashes; the latter, would, besides resupplying the potash, furnish in a greater or less degree, every other organic substance needed by the plants; *two* bushels of salt would afford the requisite quantity of Soda and Chlorine—the abstraction of lime, is singularly small,—so small, indeed, that the plaster would more than replace it—the Magnesia could be replaced by 50 or 60 lbs. of Epsom Salts—and as to the organic acids, they would be found both in the soil, and in the organic or animal and vegetable manures, applied.

Viewing the necessities of the corn plant, as developed by the analyses before us, with a practical eye, we come to the conclusion, that the integrity of the soil may be kept up, and the wants of the plants supplied, by a dressing composed of

20 loads of barn-yard or stable manure,
4 bushels bones,
10 bushels of ashes,
1 bushel of plaster, and
2 bushels of salt.

Or by an equal quantity of a compost formed of
2 parts river or marsh-mud, or any kindred substances,
1 part barn-yard or stable manure

and the quantities of bones, ashes, plaster, and salt, named above, and 100 lbs. of the nitrate of soda, and that the latter, with the exception of the ashes, may be supplied by two hundred pounds of guano being added to the compost of mud and manure. Guano, though rich in the elements of Ammonia, and the phosphate of lime, is not so in potash:—*Klaproth* did not detect any in the sample he analyzed—*Vauquelin* and *Fourcroy*, and *Voelkel*, each found but 5.5 per cent., *Bartels*, 4.2, *Ure*, *none;* nor was professor Johnston able to detect any in the two samples which he analyzed. Hence then, as there is an uncertainty of the presence of any considerable percentage of potash in any of the varieties of guano, it would be unsafe to rely upon guano *alone*, in a crop like Corn, where *one-eighth* part of its food is potash,—and, indeed, the largest percentage of potash in any guano we have seen the analysis of, would require an application of some 1500 lbs. of guano to furnish the requisite quantity of potash to replace that abstracted by a crop of corn from an acre of land, as demonstrated by the analyses of professor Salisbury; and we are very sure, that no culturist could entertain the idea, for a moment, of any such application as that.—Among the missing salts of most *old* lands, we apprehend that of *potash* stands the most prominent; and, therefore, in all combinations of manures, it should be the policy of improvers, to see to it, that substances affording potash were present; as there is none more needed by grain bearing plants; their capacity to stand erect, in a measure, being dependent upon its action upon the silica of the soil.—We do not wish it to be inferred from what we have said, that we believe all *old* soils to be destitute of potash. Such is not our belief; but as it is a substance liable to waste, and one required by the wants of most plants, it is always safest to act upon the principle that such may be the case. New lands, by the decomposition of the leaves of the forest, for a long succession of years, are always rich in this mineral salt, and hence it is, that tobacco, which consumes large quantities of it, prospers most on new or virgin soils.

Let us now turn to the consideration of the subject of the cultivation of the plant. To begin:—

Preparation of the Soil.—Dress the soil liberally with rich putrescent manures. As the manure is applied, plough it in. Let your ploughing be deep and thorough. Pulverize it by repeated harrowings, lengthwise, first, and crosswise, afterwards, and finish by rolling. We wish to impress this truth upon our readers. Much of the success in the growing of corn, is dependent upon the thorough preparation of the soil. If it be ploughed deeply, and without balks, and its pulverization be made perfect, the plants are then placed in the best possible condition to avail themselves of the food given them in the earth, while the absorbent properties of the soil are increased, and it, as a consequence, the better enabled to attract and absorb the enriching gases of the atmosphere; so that, by this attention in the preparation of the soil, we benefit the crop in a two-fold way.

Laying off the Rows.—Lay off the rows north and south.

Distance of Rows.—Three feet by four, is about as good a distance as any other, provided the soil be in good heart, or well manured.

Quantity of Manure per acre.—Twenty double-horse-cart loads of barn-yard or stable manure, or an equivalent in some enriching compost, will be about the right quantity, and as we have before remarked, the auxiliary substances which we have before enumerated should be found among the manures we have mentioned. 400 lbs. of Guano, mixed with 2 bushels of salt, or 1 bushel of plaster, and ploughed in, aided by 10 bushels of ashes, per acre, the latter to be applied as a top-dressing, would bring a good crop of corn, and leave the soil in good heart for a crop of wheat, to be followed by clover.

Number of grains of corn in a hill.—In seeding to corn, it is always best to be liberal; allowance should be made for destruction by birds, loss from rotting in the ground, &c. Therefore, it is safest to drop from 6 to 8 grains in each hill; in the dropping of which, care should be taken to spread the grains well, so that the plants might not be close together. We have found the common pipe a very good implement to drop with; by graduation, the *bole* may be made to hold any given number of grains, and thus may uniformity in the number, be regulated, and much time saved.

Quantity of seed per acre.—This must be regulated by the variety of the corn, and size of the grains. A peck of some will be enough, while, in the case of a very large grained kind, it might take a peck and a half of another sort. As a general thing, it may be assumed as a rule, that a peck of corn will plant an acre.

Preparation of the seed corn.—There are various soaks recommended; some of which we will name:

1. A pint of *common tar*, or *gas-house tar*, dissolved in 3 gallons of boiling water; the mixture to be stirred until the tar is dissolved, a bushel of corn to be put therein, stirred thoroughly, so as to coat all the grains; if the liquid is not sufficient to cover the corn, add more hot water until that is done.—Let the corn remain 12 or 24 hours in the soak, then drain off the liquid, and mix plaster or ashes with the corn so as to cover and seperate the grains, when it will be fit to plant. More corn should not be taken to the field in a day than can be dropped and covered.

2. 1 lb. *Saltpetre*, dissolved in 4 gallons of water, makes a very good soak for a bushel of corn—the seed corn to receive the same after treatment as above detailed.

3. 2 lbs. of *Copperas* dissolved in 10 gallons of water, forms a good soak for a bushel of seed corn, which is to be afterwards treated as recommended in number 1.

4. 2 lbs. of *Glauber Salts*, or the same quantity of *Epsom Salts*, dissolved in 10 gallons of boiling water, will, either, make a good soak—the same subsequent treatment of the corn as recommended in No. 1.

A peck of corn mixed with 1 quart of soft soap, the corn to be afterwards dried in ashes, answers well.

Manuring in the hill.—Manuring in the hill greatly assists the corn plants in the early stage of their growth, but cannot act efficiently after the lateral roots extend themselves; therefore, though it is good policy to manure in the hill, it should never be entertained to the exclusion of broadcast manuring. 1 load of wood's-mould, 1 load of well rotted manure, 5 bushels of ashes, and 1 bushel of plaster, thoroughly mixed together, would be ample to put on an acre of hills of corn—a handful of the mixture being sufficient for a hill. It may be put on either at the time of planting, or at the first

working; it would be better, however, to do so at the time of planting.

Cultivation of the crop.—When the plants are up and show themselves throughout the field, take a furrow from either side of the rows, and return it either then, or after you have got through the field or patch. Let the ploughmen be followed by hoemen to work around and relieve the plants with the hoe and hand. Let all subsequent workings be with the cultivator and hoe,—and, without fear of turning up your soil in dry weather, let your cultivators be at work whenever the soil is baked or the plants foul with grass and weeds. Indeed, no weeds should be permitted to occupy the ground from the time the corn is planted, until it shall receive its last working and be laid by. In working with the cultivators, they should be made to go as near the stalks as possible, so as to avoid injuring them.—This lessens the quantity of work to be done with the hoe, and therefore economises labor—a thing which every corn-grower should study and practice. The practice of using the plough, after the corn is a foot high, in the culture of corn, we have no faith in. Every ploughing after that, lacerates the roots, and, as a consequence, throws the corn plants back, until nature and time comes to their aid to restore their mediums of feeding, which had been destroyed by the operation of ploughing; for the aperture, or mouth, through which they receive their food, is at the terminus of each lateral root. If we cut off that, it stands to reason, that the process of *eating* must be suspended until other rootlets start and grow to absorb, or if you please, drink in the food. We are averse too to the practice of hilling corn. The great conditions to success, are, a clean field and open soil.

Thinning Out.—If the ground is good and has been manured, 2 and 3 plants should be left standing in each hill—the perfect fecundation of the ears depend, in a measure, upon this.

ROOT CROPS.

It is our purpose now to call the attention of our readers to the propriety of cultivating roots as a *part* of their winter food for their stock, but we desire not to be understood that they can be subsisted advantageously solely upon this kind of food, as he who undertakes to rely upon roots in this connection will be disappointed. From the succulence of such food it is naturally opening, and stock, therefore, who may receive it should be given nearly their usual quantities of long dry food to correct this tendency. If given in this way the effects of the roots will be highly salutary, whereas, if administered as the only reliance, it might prove too relaxing for the animal economy, and disappoint expectation. Even to horses, carrots as an alternate food we have derived the most essential benefits from. In cases where horses are hide-bound and their hair starry, a few days feeding, in part, with carrots will correct those evils; but still these animals should receive with the carrots about *one-half* their usual quantities of grain, and ordinary quantity of hay or long provender, be that what it may. The feeding of roots should be used with discretion, if used as an integral part of cattle food the best results will follow, so if used as an alternate food to horses, the effects will be conducive of health. Parsnips too, may with equal good effects be used for similar purposes; so might all the varieties of the beet, and Ruta-baga turnips. Whenever either may be used, they should be cut up tolerably fine and incorporated with cut straw or hay.

Time of Sowing.—For a general crop of roots this side the Hudson and Potomac, the first of *May* will be early enough; but South of the latter, the rule should be to put them in so soon after the absence of frost as time was allowed for the earth to be warmed up and in a condition to be well worked and of sufficient temperature to excite germination in the seed. To lay down any arbitrary rule, as to the precise time—to name any particular *day*, when the operation should commence, in a climate presenting a difference of season of at least six or eight weeks in distant parts of it, would be to assume a very absurd proposition—a thing which we have no taste for. The rule must be a matter of locality; to be determined by the good sense and discrimination of neighborhoods; for what would be a very proper time in one place, would be its opposite in another.

Kinds of Roots to be cultivated.—For Cattle, *Carrots, Parsnips, Ruta Baga turnips, Sugar Beets* and *Mangel Wurtzel*, are probably as good as any, and it would be well to put in portions of each, so as to be able to diversify the diet.

Of Manures.—Ten loads of well rotted barn-yard or stable manure, mixed with 1 bushel of plaster or 2 bushels of salt—or the same quantity of rich compost manure, will answer for an acre of roots.

Five loads of marsh or river mud, 5 loads of stable or barn yard manure, 10 bushels of ashes and 1 bushel of plaster, to be composted together, will also answer.

Five loads of wood's-mould and leaves, 5 loads of stable manure, 10 bushels of ashes, and 1 bushel of plaster, will be sufficient.

Two hundred pounds of Guano, 1 load of mould, 1 bushel of plaster, and 2 bushels of salt, will answer.

Ten loads of wood's-mould, 100 lbs. of Guano and 1 bushel of plaster, will answer.

Five loads of stable manure, 5 loads of wood's-mould and leaves, 2 bushels of bones and 1 bushel of plaster will answer.

But if you have no other resource, and you want to grow an acre of roots, haul 20 loads of wood's-mould into your barn-yard, put it in bulk, and pour over it the soapsuds, pot liquor, and urine, made in your family for three or four weeks, and you will have a body of manure, which, in quantity and quality, will be sufficient to grow you an acre of roots of the very first quality, and large in quantity. The value of this last compost, will be much increased in value, by the addition of a bushel of salt and 1 of plaster, though it will answer well without either, though better with both.

40 loads of sea-weeds, would bring an acre of good roots, if ploughed in as hauled on the ground.

For the method of cultivating each and all of these roots, we refer to our last volume p. 342, 343, 344.

Old Fields.—To bring these to a good condition of profitableness, treat them as we advised, this time last year, in page 347 of the last volume.

Compost Heaps.—In concluding our conversation for the month, we would be permitted to conjure you, to leave no opportunity unimproved for collecting and compositing rough materials to form manure,—for of a truth, no land can be kept in good heart, unless attention be paid to this, as the natural wastage, independent of the abstractions by crops, will, in the course of a few years, exhaust the best soil, were this great cardinal principle

overlooked or disregarded. To take all out, and put nothing in, is to pursue a course that must make the land poor indeed. In closing we will remark, that where the land is *sandy*, ten loads of manure mixed with ten loads of clay, will produce a better effect, than would twenty loads of manure applied alone. We satisfied ourself of this fact 17 years ago, and all our experience and study, subsequently, has but served to strengthen our faith in the truth of the proposition. To produce the desired effect, the manure and the clay must be intimately mixed together.

WORK IN THE GARDEN.

APRIL.

Every day in this month must be appropriated to your garden, if you desire it should ensure comforts to your table, and reflect credit upon your taste. Delays, which, during the entire growing season, are always dangerous, are doubly so now; for the period has arrived, when action must follow thought with electric speed, or the opportunity of improving time will have passed by, not to be recalled. So, as *action* is the word, we will briefly state what you should attend to, and that quickly.

Cabbage Plants.—If you have been provident enough to have grown plants for early cabbages, you must at once have a bed prepared, by generous manuring, deep spading, and accurate raking; then draw your line across it, one foot from the edge, north and south, and set out your plants 2½ feet apart; your first row being planted, stretch your line 2½ feet from the first row, set out your plants, and so continue, until your bed is planted out.

Cauliflower and Broccoli plants.—If you have these, set them out as advised for cabbage plants. But if you have neither cabbage plants, cauliflower plants, nor broccoli plants, have a bed prepared and sow seeds of each. In six weeks the plants will be ready to set out, and though you may be six weeks behind *early time*, it will be a source of consolation to know, that there will be many like yourself; for, unfortunately, there are too many, who, like yourself, move slowly, and think but little of how much they lose by neglecting their gardens.

Siberian Kale.—To provide sprouts, prepare a bed and sow a few ounces of Siberian Kale seed. The bed must be heavily manured, well dug, and raked, then sow your Kale seed, give a top dressing of ashes, and roll, and thus provide a supply of sprouts of the most delicious kind.

Peas.—Plant every few weeks during this month a few rows of garden peas, so as to keep up your supply for the table, or for market.

Beans.—Put in a few rows of these every week throughout this month, in order that your supply be prolonged.

Lettuce.—If you have plants, set them out;—if not, sow some seed every few days.

Radishes.—Seed of these should be sown at intervals of a week, in order that you may always have them crisp and nice.

Carrots.—You may drill in your main crop of this excellent table root, any time after the middle of the month. Select a deep, light loamy bed, manured with well rotted manure and ashes, mixed intimately together, or if you prefer it, with guano, dig the bed a spade deep, rake it well, lay off your rows 18 inches apart, ¼ inch or an inch deep, drill in your carrot seed, thinly, cover with the rake, and press down the earth with the back of your spade. If drought should occur, water the drills every few days until the plants come up. Then thin them out so as to stand 4 inches apart, keep them clean, and a good crop will reward your labors.

Parsnips.—You may drill in your main crop of parsnips at any time during the month; manure as advised for carrots, dig and rake the ground nicely, drill the seed in thinly; when the parsnips come up, thin them out to stand 6 inches apart, keep them clean, and the earth well stirred.

Celery.—If your celery plants are large enough, set them out. If you have none, sow some seed, as it is time now to lay the ground-work of your general crop.

Asparagus.—If you have not already done so, early this month clear off your asparagus bed, and dig in some well rotted manure, and then strew salt over the bed. The earlier you attend to this the better and larger will your asparagus be.

Spinach.—Drill in a few rows of spinach seed every week during the month.

Salsify or Vegetable Oyster.—Select a deep loamy soil, manure it well with well rotted manure, or guano, dig it in, and sow a few rows of this excellent root.

Beets.—Drill in a few rows of Blood red beet seeds.

Onions.—Prepare a bed and drill in your main crop of onions, as early this month as you can prepare the ground well.

Small Sallading.—All kinds of the seeds of small sallading should now be sown.

Skirret.—Drill in a few rows of Skirret seed.

Artichokes.—Dress your artichoke bed, and that done, sow more seed.

Tomatoes.—If you have not already sown your tomato seed—and they should have been sown many weeks ago—sow some without farther delay, as it is time they were in and up.

Seed Onions.—Set these out.

Red Peppers.—Sow seed for a main crop.

Planting out for seed.—Early this month plant out your cabbages, beets, parsnips, carrots, turnips, &c. for seed.

Potatoes.—If you have not already done so, put in early this month—if possible during the first week—a bed of early potatoes.

Horse Radish.—If you design cultivating this root, set out a bed as early as possible.

Rhubarb or Pie-plant.—Set out a dozen or two plants, to provide the best subtitute for gooseberries as the filling for pies.

Gooseberries,—Currants.—Trim your gooseberry and currant bushes, dig in a little well rotted manure around the roots, and give them a top-dressing of ashes. New plantations of each may now be made. In planting out the cuttings, rub off all the eyes of the end you insert in the ground.

Raspberries.—If you have not done so before, trim these, and tie up the vines. Dig a compost made of 7 parts well rotted manure and 1 part ashes round the roots.

Okra.—Drill in a few rows of this excellent vegetable.

Egg Plants.—If you have no plants of this kind, sow some.

Pruning of Fruit Trees.—If they *require* it, prune your garden fruit trees early this month. In pruning, never use the knife except when absolutely necessary. Dead limbs should be cut off; but if not dead, they should not be touched. If there be

any interlocking branches they may be removed; but it is injurious to be cutting off sound limbs, except to let in light. A little dung, and ashes, and bone dust, made into compost, and dug in around the roots of the trees, will be of advantage—their bodies should be painted with a mixture of soft soap, flour of sulphur, and salt, made in the proportion of 1 gal. of soft soap, 1 lb. flour of sulphur, and 1 qt. of salt. If the bark of your trees are rough, scrape them before you apply the mixture.

Planting out Fruit Trees.—This may be done this month, the earlier the better.

Shrubbery.—Trim shrubs of all kinds. If your garden and yard be without them, let such cause of reproach exist no longer against you, but obtain a supply and have them planted out during the early part of this month; the earlier the better.

Cucumbers, Cymblins, Melons, Canteleupes.—These may be planted in open culture the last of the month any where.

Herbs of all kinds may now be planted out, or the seed sown. Make it a point of duty to grow in your garden *all* the culinary and medicinal herbs.

Flowers.—Among other things that you may grow in your garden, do not neglect to have a choice selection of flowers; for however well stocked a garden may be with vegetables, it will be incomplete, if it be not adorned with flowers.

Strawberry Beds.—If not cleaned and dressed, should be the beginning of this month. A dressing of well rotted manure and ashes should be worked in between the rows, and straw laid between them. If to be had, a layer of tanner's bark, placed under the straw would be found useful.

Early Turnips.—Manure a bed and sow early turnip seed. The *Early Dutch* is the best sort. Besides being a healthful vegetable—besides adding to the luxuries of the table, the turnip when grown early, always brings a high price in market, as but few persons trouble themselves about growing them.

PRODUCE OF A SCIENTIFIC FARMER'S FARM.

We gather the following, *given as facts*, from the "*Journal of Agriculture*," published at Boston.

R. L. Pell, Esquire, of New York, owns a farm of 600 acres, in Ulster County, New York. On it he has an orchard of 21,000 apple trees, chiefly *Newtown Pippins*. He has sold "annually 6000 barrels of apples, at never less than $6 per barrel." "These apples," says the editor of the Journal of Agriculture, "are all picked by hand from the trees, and placed singly in the barrel, having been carefully guaged, so that each barrel is filled with apples of the same size. No apple that has the slightest speck or bruise upon it, is allowed in the barrels." * * "The barrels, when filled, are carried, *not rolled*, to the store-house, and thence carried again to the boats for transportation to N. York." Six thousand barrels of apples at $6 per barrel, is **$36,000**—a snug annual income from an orchard! In addition to Mr. P.'s sale of apples, Gen. *Chandler* stated to the New York Farmer's Club, at its meeting on the 17th of June last, that he sold also 400 tons of hay.

Mr. Pell has "8 fish ponds on his farm containing 45 different kinds of fish, some of them exceedingly large. The ponds are made from drained meadows, and serve for irrigating several fields."

The above are the results of scientific farming, Mr. Pell being a "thorough scientific farmer."—His triumphant success, should at least cause those, who turn up their noses at scientific farming, to pause and reflect.

FARMING IN NEW YORK.

It is sometimes interesting, and always instructive, to know how our brethren manage their farming operations in other States, and with the view of showing how a notable, pains-taking farmer of the Empire State, manages so as to render his farm not only productive, but to keep it in an improving state, we shall make a few extracts from his *Report to the N. Y. State Agr. Society*, in answer to questions propounded to him by that Association. The Report whence we make these extracts, was made by Mr. *Elisha M. Bradley*, of Ontario county. His "soil is a gravelly loam, in some places merging to sand, and in others tending a little to clay; is from 6 to 12 inches deep, and rests upon a subsoil of red clay. Limestone abounds in the soil." He says, in answer to a question as to the best mode of improving the soil:

HOW TO IMPROVE THE SOIL.

"Plentifully manuring with well rotted manure, thoroughly mixing the manure with the soil, by means of the plow, cultivator and harrow, is esteemed the best manner of improving the soil."

DEPTH OF PLOUGHING.

"The usual depth of plowing, is as follows: for *Corn* from 6 to 8 inches; for *Potatoes, Oats, Barley, Peas* and *Wheat*, from 8 to 10 inches. Repeated experiments have established it as a fact, that thorough *deep* tillage ensures the best crops. I have frequently experimented in shallow and deep plowing for growing *barley, oats, and wheat*, and the result has ever been *in favor of deep* plowing."

EFFICACY OF SUBSOIL PLOUGHING.

"I last spring put the subsoil after a common plow, which turned a furrow 10 inches deep, upon corn stubble, which I was preparing for barley. The *subsoil* ploughed a furrow some 8 inches deep, pulverizing the ground thoroughly to the depth of 18 inches, with an exception of a small part of the field, which was not subsoiled, and from the time the grain was four inches high until harvest, a very great difference was observable in the appearance of the grain. Upon the part not subsoiled, it was scarcely a medium growth. Similar results have been obtained with peas and oats."

MANURES.

"Manure is mostly applied to hoed crops, upon which are applied 40 loads (of 30 bushels per load) per acre. Manure is made in [as] compact places as possible, and is either kept in as large heaps as possible, or under ample sheds, which are provided for all my cattle and sheep. Sheds and yards are kept thoroughly littered, and each yard has a basin into which the liquid excrements of the stock, and rain water are conveyed, and there taken up by coarse litter. At the close of the foddering season, the scattering litter and manure is gathered up and put under the sheds, or in compact heaps until rotted."

"My manure consists of the droppings of horses, cattle, sheep, hogs, and poultry, mixed with refuse straw, leaves, and every other available substance convertible into manure. The accumulations in the privy, together with the carcases of dead animals, PLASTER, muck, leached ashes, and almost every substance, (*lime excepted*,) find a place in the compost heap, and add much to the fertilizing products of the farm. A great amount of straw has been annually consumed on the farm, and is fed to sheep, cattle and horses, and freely used as litter. For

the purpose of increasing the amount of manure for the farm, crops have been sown upon shares on other farms, and the grain drawn home and thrashed, and the straw consumed upon the farm. I manufacture about 350 loads of manure annually, and apply about 400, the balance being purchased of my neighbors."

"Manure is applied rotted. If found necessary to use unrotted manure, it is applied to a corn crop, in the manner noticed under the head of tillage. For top-dressing upon meadows it is used thoroughly rotted."

"I use annually about three tons of plaster upon my grass lands, hoed crops and wheat. Salt has been occasionally used, and once upon corn, with satisfactory results. Leached ashes have been applied as a top-dressing upon meadow, and plowed in before root crops, to good advantage. Common wood ashes, unleached, are annually applied to corn, just as it makes its appearance above ground, and gives it a healthy appearance, and I think prevents worms from attacking it."

TILLAGE CROPS.

"1st. Manure heavily and plant to corn, or some hoed crops.

2d. Succeed the following spring with barley, oats, and peas.

3d. Sow to wheat in the fall, and seed to clover and timothy.

4th. Cut a crop of grass for hay, and crop of clover for seed.

5th. Seed each season for two years.

6th. Pasture for one season, and then manure heavily and plant to corn, following again the above otation, which occupies six years, and upon my arm gives me eleven acres for hoed crops, eleven acres for barley, oats and peas; eleven acres for wheat, twenty-two acres for meadow, and eleven acres for pasture, annually, upon plough land."

MODE OF CULTIVATING CORN.

"Corn is planted upon highly manured greensward, ploughed 6 or 8 inches deep, thoroughly harrowed, marked in straight lines, 3 feet apart each way. *Five* kernels are planted in each hill, care being taken that they are not all thrown together, but separated a few inches apart, and covered with nothing but mellow dirt, one and a half inch deep. As soon as planted, a thread of common woollen twine is stretched about the field, upon stakes firmly fixed in the ground, at about 6 feet from the ground, to notify the crows that they have neither part nor lot in the crop. When the corn first makes its appearance above ground, a table-spoonful of common wood ashes is put upon each hill. As soon as the rows are plainly seen, (or when the corn is about 2 inches high,) it is *cultivated* both ways of the field, and hoed, care being taken that the grass is perfectly cut up, and the dirt loosened around the stalks of corn. When the first hoeing is completed, it is plastered with about a tea-spoonful of plaster to each hill."

"In about two weeks from the first hoeing, and *before it needs it*, it is *cultivated* and hoed again. In two or three weeks more it is *cultivated* and hoed the third and last time, and plastered as after the first hoeing. No further culture."

CUTTING UP AND CURING THE CORN CROP.

"When it has generally begun to glaze, it is cut up by the roots, and set up in stooks containing about 25 hills each. As soon as sufficiently dry it is husked in the field, the corn drawn home and cribbed, and the stalks bound, and if well cured put immediately under cover."

SELECTION OF SEED CORN.

"In selecting *seed corn*, ears are selected, which are perfect in all respects, and well kernelled over the small end; the imperfect kernels from each end of the ear are removed, and the remainder shelled for seed."

PRODUCT.

"The *average* product of corn is from 70 to 100 bushels per acre."

CULTURE OF ROOT CROPS.

"*Potatoes* are cultivated as corn, planted the same distance apart, and receive the same treatment, and usually produce from 300 to 350 bushels per acre."

"*Carrots* and *Beets* are grown upon similarly prepared ground, in drills 18 inches apart,—average growth of *beets*, (blood and sugar varieties,) 400 bushels, and *Carrots*, 850 bushels per acre."

OTHER CROPS.

"*Barley*, *Oats*, and *Peas* are sown upon corn stubble, plowed from 8 to 10 inches deep. Three bushels of seed are sown per acre for the above crops, about the middle of April. Barley and Oats are cut when the quantity of milk in the kernel has begun to dry, bound in small sheaves, and put in small stooks to dry, hauled in when well cured, and thrashed with machine, and the straw housed for feeding." *Peas* are hooked up with a scythe, secured when dry, thrashed with a hand flail, and the straw housed for feeding."

"The average of our *Barley* crop is from 45 to 50 bushels; of *Oats*, from 70 to 90. *Peas* have not been cultivated until the present season—the yield from one acre this season was 41 bushels, 31 lbs., allowing 60 lbs. per bushel. When practicable, the ground for *Barley*, *Oats*, and *Peas*, is *subsoiled* to the depth of 14 to 16 inches."

"*Wheat* is sown upon *Barley*, *Oat*, and *Pea* stubble, ploughed once from 8 to 10 inches deep. Two bushels of wheat is sown per acre, the first week in September, *cut as soon as out of milk*, bound small and set up in shocks to dry. Thrashed with machine, and the straw housed, or as much as possible. I would here remark, that room has been provided for storing the straw of 1,500 bushels of grain; that I consider straw and chaff where the grain is cut before [it is] ripe, and well secured, as highly nutritious and valuable, and I cannot afford to suffer the loss necessarily incurred in stacking all my straw.—*Average wheat*, 28 bushels per acre."

SOWING CLOVER AND GRASS SEEDS.

"Small Red Clover and Herds' Grass [Timothy] seed are sown upon the wheat. The latter in the *fall*, and the former in the spring; the fall after the wheat is cut, it is pastured but little; plastered early the following spring with about 100 lbs. per acre, and cut when in full bloom, cured in the heap and housed for feeding. The second growth is allowed to ripen for seed, and cut and cured in September. The same course is pursued the following year: and the third year it is pastured, and the following spring manured and planted. Average amount of grass cut per acre, from 1½ to 2 tons; average clover seed, 3 to 4 bushels."

PRODUCTS OF THE FARM.

Upon this subject Mr. *Bradley* remarks:—

"A *Farm Ledger* is kept, in which a debt and cred-

it account is kept with every field on the farm, with all kinds of stock, and all experiments instituted during the year." He also keeps "*a Stock Register—a Fruit Register—a Meteorological Journal and Note Book.*" He gives a detailed statement of the receipts and expenses of the farm for 1850. The *receipts* were $2.702 37—the *Expenses*, $1.242 50; leaving a balance in favor of the year's operations, of $1 459.87, equal to $9.73 per acre, after paying interest and taxes.

Management of Farm Stock.

Mr Bradley concludes his statement thus:—

"In reference to the care and management of *Farm Stock*, I would add, that in my opinion, a farmer ought never to allow an animal to grow poor upon his hands. That all farm stock should be kept thriving; and that when any animal deteriorates in value, it does so at the expense of its owner. In selecting stock for breeding, care is taken that the animal be in the prime of life, neither too young nor too old, and by no means unhealthy or diseased. The greatest possible care is also taken in selecting seed of all kinds for the farm; believing as a general rule, that *like begets like.*

"*I subscribe for, and read, six agricultural papers, which I consider the best investment made in the year.*"

The statement from which we have made the preceding *extracts*, is *sworn* to by Mr *Bradley*, and, therefore the facts stated are implicitly to be relied upon. And we would ask the reader to bear in mind:—that Mr. Bradley only cultivated 66 acres of land, and yet his clear profits after allowing $525 interest on the cost of his farm and improvements, $300 for his own time and services, $335 for hired help, $50 for wear of team and tools, paying taxes, and all other expenses are deducted, amounted to $1459.87; that his farm consists of 150 acres, and that, calculating the net profit upon the *whole extent* of his farm, it amounts to $9.73 cents per acre. If, however, we were to estimate it upon the quantity of land *actually in cultivation*, the average profit on the cultivated land would be $22.11 61-66 per acre. Again, if we add the $525, the interest on the land, and the $300 for his services, which, we think, in determining the actual profit may be very properly done, it will give us a net average profit, per acre, of $34. 61 61-66.

Such results as the preceding, demonstrate beyond all cavil, that, when a farmer makes the *accumulation of manure an important feature in his system, as every farmer should, and when he composts it judiciously, and applies it with a free and liberal hand*, farming is among the most profitable of human occupations, as well as most pleasant, independent, and honorable.

Mr. Bradley's farm and improvements, cost him $7.500; if we take that as his capital in business, the net profits is rather more than 30 per cent interest a year. A *fortunate* merchant would, perhaps, on a capital of $7.500, make more profit in a year, but from the very nature of trade, where *one* merchant dies rich, *ninety-five* die bankrupt, and leave their families destitute; whereas, not one prudent farmer in a hundred die insolvent.—*Editor Am. Farmer.*

COMPOSITION OF A FERTILE SOIL—HOW TO AMEND AN INFERTILE ONE.

Professor *Gray*, in his admirable work entitled, "*Agricultural Chemistry*," says that it may be inferred that the best constituted soil contains the various ingredients in about the following proportions:—

Silica	60 parts in 100
Alumina	16 " " "
Lime	3 " " "
Oxide of iron and Manganese	7 " " "
Soluble Geine	4 " " "
Insoluble do.	5 " " "
Potash	3 " " "
Magnesia	1 " " "
Soda	1 " " "

And adds:—

"The earthy constituents may vary, but the salts and geine must be from 4 to 10 per cent., or the soil will not produce a bountiful crop."

Now, by having them analyzed, farmers may very readily ascertain how near *their soils* come up to this standard of a fertile soil—as readily ascertain wherein lie their deficiencies, and thus be enabled, advisedly, to supply those deficiencies to their lands, respectively.

If the soil should be entirely destitute of lime—which is not likely to be the case—but possess the requisite quantity of soluble and insoluble geine,—that is, decayed and decaying vegetable and animal matter—about 100 bushels of lime to the acre, if their land is ploughed 6 inches deep, would give them enough of that mineral.

If the deficient ingredient was *potash*, the same number of bushels of unslaked ashes, would, in all probability, furnish the *necessary* quantity of potash.

Magnesia, if absent from the soil, might be supplied by 100 lbs. of Epsom Salts, or by ashes.

If the missing substance should be *Soda*, a few bushels of common salt would supply that deficiency, as well as chlorine.

If *oxide of iron* and *Manganese*, were wanting, a sufficiency could be found in the ashes spoken of above:—or they might both be added, by turning up an inch or two of the subsoil, if that happened to be red clay. Should there be Sulphate of iron present in the surface soil, or in the subsoil, when ploughed up, its sulphuric acid would very speedily combine with the lime applied, form a sulphate of lime, and oxide of iron, and thus provide the former ingredient, which is omitted by Dr. Gray, but should be present, and if not so naturally, should be artificially supplied.

Indeed, if ashes were applied, all the important salts and inorganic substances, *absolutely* necessary, would be thereby furnished. The same remark would hold good, with respect to a *heavy dressing* of barn-yard, and stable manures, as in these, all those *inorganic*, as well as *organic*, substances abound, which go to feed and make up the structure of plants.

If both *lime* and *magnesia*, should happen to be absent—which we do not apprehend as likely to be the case—an application of magnesian lime would be the proper one, as the *one* application would supply both of the deficient minerals, while it would involve but one outlay—a consideration of moment, which, as a matter of economy, should always be looked to by farmers in all their expenditures.

We are not certain, however, that so large a per centage of *lime* and *potash*, as is indicated by professor Gray's *formula*, is indispensable to constitute a productive soil,—and, therefore, believe that half the quantity of lime, or ashes, we have named, would prove sufficient for all *present* practical purposes. Upon this head, the late Mr. *Puvis*, who was one of the most exact and enlightened Chemists of France—who was, withal, a successful practical

farmer for thirty years,—and who addressed himself to the investigation with all that zeal, which is peculiar to a generous mind, struggling to improve one favorite science, by the lights of another:—we say, that he, after thirty years devotion to Agriculture, and to those chemical researches applicable to its wants, thus expressed himself:—

"A quantity of lime, which does not exceed the *thousandth part* of the tilled surface layer of the soil, a like proportion of drawn ashes, or a two-hundredth part, or even less, of marl, are sufficient to modify the nature, change the products, and increase by one-half the crops of a soil destitute of the calcareous principle."

In speaking of the different modes of applying *lime*, in the several districts of France, he gives the preference to that of *La Sarthe*, where it is applied at the renewal of each rotation—every third year—in the average quantity of 11½ bushels to the acre, made into compost some months in advance, in the proportion of 1 part lime, to 7 or 8 parts good mould or earth.

There are but few of the Agricultural Chemists, if any, to whose opinion we would more readily defer than to that of Dr. *Gray;* but we must be permitted upon this occasion to observe, that we think he has omitted a very essential element—we mean Phosphate of lime. We doubt ourself, that any soil can be very fertile in the absence of phosphoric acid:—we deem its presence necessary in some form: whether it exist in a free state, or in combination with lime, or magnesia, we consider unimportant, so that it be in the soil. Nor do we deem it essential that it be there in very large quantity,—but its *presence* we consider indispensable, as we believe, plants cannot perfect their seeds and fruits without it. So little, however, is actually required, that a very few bushels of bone-earth will supply the deficiency, and especially is such the case, when the bones may be dissolved in sulphuric acid, as that process liberates the phosphoric acid, and renders it at once available to the plants.

Where *ashes*, *oyster-shell-lime*, or *shell-marl*, may be applied to land, the deficiency of phosphoric acid in the soil will not be felt; because, in each of the substances named, phosphoric acid exists, and the plants would derive their supply from either of them.

By way of comparison, we append a *Table* from *Norton's "Elements of Scientific Agriculture."* The first column gives the elements of a soil *fertile without manure;* the second of one *fertile with manure*, and the third and last column, of one known to be *very barren*.

In one hundred pounds	Soil fertile without manure.	Soil fertile with manure.	Very barren.
Organic matter	9.7	5.0	4.0
Silica	64 8	83.3	77.8
Alumina	5.7	5.1	9.1
Lime	5.9	1.8	.4
Magnesia	.9	.8	.1
Oxide of iron	6.1	3.0	8.1
Oxide of Manganese	.1	.3	.1
Potash	.2		
Soda	.4		
Chlorine	.2		
Sulphuric acid	.2	.1	
Phosphoric acid	.4	.2	
Carbonic acid	4.0	.4	
Loss during the analysis	1.4		.4
	100.0	100.0	100.0

To look at the *blanks* in the *second* and *third* columns, and see the quantities of *inorganic* substances which are represented in the *first*, opposite them, and which go to make up portions of the entierty of the soil represented as being *"fertile without manure,"* one, at first sight, would be disheartened, and turn with fear and trembling from any effort to restore the deficient matters. And, indeed, if there were any immediate necessity for their presence in *such large quantities* as we find them stated, it would require a stout heart, and a long purse, to sustain such an improvement. We, however, who firmly believe with the late eminent *M. Puvis*, that the thousandth part of any one of the elements is sufficient to change the nature of a soil, and infuse into it fresh productive powers, do not look upon the task as being at all herculean.

The substances absent from the soil, in the second column, are *Potash*, *Soda* and *Chlorine*, all abundantly present in the *first*—so abundant, indeed, that to attempt to replace them to the same extent in the *second*, would involve an expenditure greatly exceeding the value of the land. They are not, however, necessary to be present to that degree, so far as products for a series of some years are concerned, and we should calculate, that, by giving a good dressing of barn-yard and stable manure, and applying 100 bushels of ashes, per acre, that they would not only correct the defects of the soil, but prepare it to go through a rotation, and be in an improved condition at the end of it. In barn-yard and stable manures, and ashes, there will not only be found the deficient salts, but every other substance that enters into the structures of plants, their seeds, and their fruits.

The *third* soil, is more radically defective. It is deficient in *Potash*, *Soda*, *Chlorine*, *Sulphuric acid*, *Phosphoric acid*, and *Carbonic acid*—each and all of which bodies are absolutely essential to a productive soil,—and then, it has an excess of *oxide of iron*, and a comparatively small quantity of *lime*, and organic matter. Hence, the treatment must be more radical, and more time be devoted to the cure.—Two green crops, say of peas, beans, or buckwheat, should be grown and ploughed in, as a preliminary process. To prepare the ground to grow these crops advantageously, a compost should be formed of 10 loads of stable and barn-yard manure, 10 loads of river or marsh mud, or peat, 1 bushel of plaster, 5 bushels of bones, 5 gallons of oil and 6 bushels of refuse salt of the meat or fish packers, per acre.—This being formed into heap, should remain a few weeks, and then be thoroughly shoveled over, so as to be well mixed together. This being spread and ploughed in, the land should be top-dressed with 50 bushels of lime and 100 bushels of ashes,—then the peas, beans, or buckwheat, should be sown, harrowed in and rolled. So soon as the plant sown comes into bloom, it should be rolled and ploughed in, the ground harrowed, a second fifty bushels of lime be sown thereon, and a second crop of the plant, selected, be sown, harrowed in, and rolled. When this comes into bloom, it should also be ploughed in, when the ground should be harrowed, and sowed to wheat. Clover and orchard grass seeds, should be sown thereon the ensuing spring, say, at the rate of 15 lbs. of clover seed, and 2 bushels of orchard grass seed, per acre. The land should be permitted to remain in grass for some years. Such treatment would bring the land described in the third column, up to a profitable state of production.

It would be well too, to turn up an inch or two of

the subsoil, so as to increase the surface soil. If attainable, a peat compost should be formed, and a heavy dressing given to the land, to increase the organic portion of its elements, which compost should be formed by spreading the peat on the ground in an oblong square, and adding two bushels of ashes to every cart load of it—first a layer of peat, then ashes, until the heap was completed, giving to the heap a cone-like form, so as turn rain; the last layer to be peat, and that patted down with the back of the shovel. Such composts should be shoveled over at least twice in the course of two or three months, when the decomposition will have been effected, and the compost be fit to use.

VALUABLE AGRICULTURAL SCRAPS

Lucerne.—We have recently seen it intimated, that this plant will not answer for the South—our opinion, is, that it WILL, provided the soil be good, and there be lime in it. It grows in *South America*, *Spain*, *Italy*, and the South of France, and why should it not grow in the Southern States of North America?

A Maxim.—To enable a man, or a horse, to do a full day's work, each must be well fed—to enable the earth to yield a plentiful crop, *it* too, must be well fed. Without a large proportion of the material to make it out of, be in the soil, a vegetable product cannot be perfected.

Small Grain for Seed.—Wheat, Rye, Oats and Barley, intended for seeding, should be got out with the *flail*, and winnowed in a good north-west wind; subjecting either to the cleansing process of machinery, it is said, will destroy the vegetative power of fully one-fourth of either—and we believe it.

Mussel-Mud as Manure.—"I have known a skilful farmer enter upon a new farm, and by the application of Mussel-Mud, Plaster and Stable Manure, and the manure made by some half a dozen hogs, which he almost solely kept for the purpose, in the course of seven or eight years, increase the hay crops of his fields from 15 tons up to an average of 100 tons."—S. B. Becket in Patent Office Report.

Remark.—River and Creek Mud, will be found equally good—with this exception—there is less lime in it.—*Ed. Amer. Farmer.*

Hogs as Manure Makers.—"The hog-pen should be supplied with fresh loam every day, in quantities sufficient to neutralize and keep down all unpleasant odour. A hog weighing 300 lbs. where loam is added as above, will make 10 loads of excellent manure."—Wm. P. Gates, in the Patent Office Report.

Plaster and its Effects.—"Plaster, or Gypsum, is universally sown on clover fields in the spring, when the grass is about 4 inches high, at the rate of one bushel per acre, with the most astonishing effects. It is a valuable agent in absorbing manures in the form of gases, and is used very profusely about manure-heaps, cattle yards, and stables. Its action is just the reverse of lime, the one retaining the gases, and the other assisting them to pass off."—James Thornton, Jr., Byberry, near Phila., Pat. Of. Rep.

Manure-Making.—Giles B. Avery, of Shaker Village, Columbia County, New York, gives the following plan pursued by the Society, in the manufacture of manure:

"Our yards are constantly kept littered with straw, swamp-muck, or other refuse. Beyond all doubt the most economical plan, and one extensively adopted for manufacturing manure, is to compost the droppings of the yard and cleanings of the stable with muck, leached ashes, or better, unleached ashes, (as our soils, and old soils generally, are deficient in alkali,) adding plaster to fix the ammonia; but never use lime in compost with animal manures, as it sets free the ammonia, which is the life of manures;—*this plaster fixes:* to this salt should be added, the soap-suds from the wash-house, and chamber-ley from every quarter."—Patent Office Report.

Remark.—The Shakers are proverbial for their strong common-sense—for their sagacity—and for their practical views—and hence, know how to preserve the ammonia—the life of manures."—*Editor American Farmer.*

FLORAL DEPARTMENT.

Prepared by John Feast, Florist, 279 Lexington st. for the American Farmer.

Camellias, at this time, will be making new wood, and but few flowers to bloom—keep them frequently syringed, and give plenty of water, until they begin to ripen the new wood—have them shaded somewhat from the mid-day sun, and give plenty of air, at all times, if the weather will permit—repot such as are in need of larger pots.

Cyclamens and *Oxalis*, that have done blooming, should be put aside in some dry, suitable place, and be careful in not over watering them, which is liable to injure the bulbs when not in a growing state.

Rhododendrons and *Azaleas*, as soon as done blooming, should be repotted, and give plenty of drainage.

Lechenaultias, *Beaufortias*, *Tremandras*, and such like, may be propagated—also *Torenia Asiatica* and *Scabra*, two pretty plants for flowering through the summer, but require rather a shady situation, or they are liable to be injured by the sun, which generally destroys them.

Fuchias will require attention now they are growing; give them good sized pots, with suitable compost, and if properly pruned, will make strong wood for flowering; syringe occasionally, and fumigate with tobacco to keep the plants clean, and keep up a moderate degree of heat and moisture, which is essential to their health.

Geraniums will now be showing flowers, and need care to keep the plants free from insects; give plenty of air, and as near the glass as possible, if a fine bloom is wanted; this makes them grow strong and bushy, and clothed with a healthy foliage, which are seldom seen, treated by any other mode of cultivation.

Amyrillas, *Gladioluses*, *Tigerflowers*, and *Tuberoses*, might be put out about the latter part of the month in the open ground, and the greenhouse sorts which have been repotted, should be brought forward and watered, to forward their flowering.

Carnations repot, and tie up, as they make flower stems, and give them plenty of air.

Chrysanthemums should be repotted the latter part of the month, and increased by cuttings or suckers.

Dahlias increase by cuttings, or separating the roots.

Hardy *Annual* flower seed sow in the borders, and those more tender, forward in a frame, and transplant at the proper time.

Perennial plants, separate and plant out—if large enough, from seed, if sown in the autumn; and if any were omitted, sow in the open ground.

Hydrangeas should be repotted in good rich soil, and pruned—also strike from cuttings such greenhouse plants as as are wanted to increase the collection.

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Address, SAMUEL SANDS, Publisher,
At the *State Agricultural Society Rooms*, No. 128 Baltimore st. over the "American Office," 5th door from North-st.

Maryland State Agricultural Society.

The quarterly meeting of the Executive Committee of the Society will be held at the Society's Rooms, 128 Baltimore street, Baltimore, *on the first Wednesday in May*, at 10 o'clock, A. M. As the time for holding the Annual Exhibition, and the Prize List, will be settled at this meeting, the Judges appointed, and other business of importance transacted, it is hoped that every member of the Committee (comprising the officers of the Society) will be in attendance, prepared to make such suggestions as may be deemed conducive to the interests of the Society.

☞ The Society, by resolution adopted at the last meeting, will hold a session at the same time and place, at which the members generally are requested to attend.

By order, SAM'L. SANDS, Sec'y.
April 1, 1852.—2t

AGENTS.—Mr. Wm. O. Brevard, of Albemarle Co. Va., is an Agent for the collection of dues to, and will receive subscriptions for, the American Farmer, in Albemarle and the adjacent counties.

Mr. Rd. Irby, of Nottaway Co. and Mr. F. C. Stamback, of Petersburg, will also please act for us in their vicinity.

Other friends in these and other localities will also confer a favor on us by continuing their kind offices in behalf of the "*Farmer.*" Show-bills will be forwarded to such as may request it, and sample copies of the paper.

JOHN S. SKINNER.—We ask the attention of our readers to the *Memoir* of the late John S. Skinner, which graces our present month's pages. And while we do so, we would most deferentially recommend the proposition which it contains to the consideration of the meeting of the Maryland State Agricultural Society, which is to take place in May next. No man ever labored with more zeal or with a higher degree of intelligence for the Agricultural interests than did the late John S. Skinner—no man ever conferred as many benefits upon the landed interests. We hazard nothing in saying, that he enhanced the value of their lands millions of dollars. And we, therefore, think it is due from the Agricultural community to make some *solid* testimonial of their appreciation of his labors.

The Pa. State Agricultural Society has, by resolution, fixed on the 20th, 21st and 22d of Oct. for the holding of the next Fall Exhibition, and have notified our Society thereof;—the place is not yet decided on.

Persian Tobacco.—Tho. J. Fenwick, Esq. of West River, Md. has sent us some of the product of the Persian tobacco seed, distributed by us some two or three years ago. It is the most beautiful bright leafed tobacco we have ever seen, and would no doubt command a high price in the market. It can be examined at our office.

Inspection of Guano and Plaster—and Lime.—At the late Agricultural Convention held in Richmond, Va., it was resolved to memorialize the legislature to abolish the inspection of Guano and Plaster. We believe that the same step, if taken by the Maryland Legislature, would meet the approbation of nine tenths of the farmers of our State who use these articles, who consider that they are paying a tax for which they receive no just equivalent—and if the inspection of lime was also added, so much the better,—as at present conducted, and we have no hopes of its being bettered, the inspection laws, except perhaps for flour and tobacco, are little better than an imposition upon the farming community particularly, and the public generally, and the sooner they are abolished, the better.

SALE OF STOCK.—We refer those wishing to improve their stock to the advertisement of Col. Morris, on another page. His 3d Annual sale will take place on 9th June. Col. M. stands in the front rank of breeders and importers in the U. S., and gentlemen wishing to obtain the finest and purest breeds will do well to attend this sale. A new feature is presented to the public by Col. Morris—that of letting the services of male animals—the terms are so fair, that we think the plan worthy of attention.

A Swing for Shoeing Horses.—A correspondent in N. Carolina asks us to publish in the Farmer "a plan to swing a horse to shoe—also a plan for charring wood to make charcoal." If any of our friends can furnish the desired information, and drawings of the machinery used, they will oblige us.

DR. HIGGINS' 2D REPORT.—We have received the 2d Report of the State Agricultural Chemist to the Maryland Legislature. Dr. Higgins, Mr. N. Williams, of the Senate, and Messrs. Ware, Wm. Geo. Baker, and W. A. Stewart, of Balt. city, C. A. Buchanan of Balt. Co. and Chas. G. Hanson of Howard Co. of the House of Delegates, will please accept our thanks for furnishing us with copies of the Report. It comprises 126 pages. We have not given to the report a careful reading, but in looking cursorily through it, we came to the conclusion that there was much useful matter in it.

Montgomery Co. Agricultural Society.—This society held a meeting on the 4th ult. at which it was recommended to organize "Agricultural Clubs in different parts of the county, and report to the executive committee the result of their experiments, and any statistical information that they may deem conducive to the interests of agriculture."

Resolutions were also adopted approving the action of the State Society favorable to the establishment of an Agricultural Department of the National Government—and likewise recommending to the Legislature to abolish the Guano inspection law, as it "affords no protection against fraud and imposition—is nothing but a humbug, and mere farce in its practical operation—an annoying and unnecessary tax, tending to drive the importation of the article from the ports of our State, much to the injury and inconvenience of the agricultural community,"—and in lieu thereof, and as "affording much cheaper and surer protection against fraud and adulteration, this society recommends the passage of a law, requiring each importer and vender of guano, to exhibit, or furnish, if requested, at his or their own cost and expense, an analysis from

some known and professional chemist, of the quality and component parts of each cargo or lot offered for sale, with a heavy penalty, recoverable in the most summary manner, for fraud upon sales made under such analysis."

Charles Co. (Md.) Agricultural Society.—At a meeting held the 17th Feb. the Society adopted (with but one dissenting voice) sundry resolutions, approving the original action of the Md. State Society, in reference to the establishment of an independent Agricultural Department of the Government. A committee was appointed to unite with societies, and others to "take all proper steps to procure by legal enactment a correct, full and useful Inspection of Guano, Plaster, Lime and other Manures for agricultural purposes, making it the duty of such inspectors to publish the qualities, relative value, &c., so as to be of practical benefit to the agricultural community." The same committee was also directed to memorialize the Legislature on the subject of an Agricultural Bureau for the State, and a continuation of the office of Agricultural Chemist."

Mowing and Reaping Machines.—The Poughkeepsie (N. Y.) Eagle speaks in high terms of a Mowing Machine, introduced into Dutchess Co. recommended highly by a large number of farmers who have used it with success—it is warranted to cut and spread an acre an hour of any kind of grass with a pair of horses on all lands free of obstructions, and as well as is done by the best of mowers. It is said to be simple in construction, and can be managed by a boy.

The Doncaster (Eng.) Gazette, states that in a trial in cutting down wheat stubble by Hussey's machine, which was introduced into the northern counties of England by Mr. Crosskill, of Beverly, it did its work finely. The trial took place at a Mr. Ingles' farm.

"In some parts of the field (says the Gazette) the stubble was nearly rotten, and also much trodden down by the crowd of visitors present; but fearless of the bad season and the effect of the late frosts, Mr. Taylor started the reaper across ridge and furrow, and fully proved its superior cutting propensities, notwithstanding so many unfavorable circumstances. The trial was witnessed by many of the principal practical farmers in the neighborhood of Pontefract, who expressed their full approbation of its efficiency, in a certificate to Mr. Naylor, and we very willingly add the names of several other enterprising gentlemen, well known in this locality, who have given orders to Mr. Crosskill for reaping machines, viz:—Captain Newton, Womersley, Pontefract; M. Flaviell, Esq., Snydal Hall, C. Charnock, Esq., Ferrybridge, Pontefract; J. Brown, Rossington, Doncaster; E. Brook, Esq., Hampole, Doncaster; W. Poskitt, Esq, Birkin, Knotingly; W. Boulton, Esq., Kensall, Snaith.—Doubtless many more will adopt this most valuable invention; and the plan of testing one reaper in every parish at this season of the year, upon stubble or winter tares, is deserving of consideration, as it may enable many to decide to cut by the machine before next harvest."

We ask the favor of the press at the North and West, and in fact throughout the length and breadth of the land, to the trial of Reapers to take place in this State at the coming harvest. The time and place for the trial, as well as for testing the hay and tobacco presses, we had hoped to have it in our power to announce in this number—but we have received no communication as yet, from the chairmen of the several committees appointed. It will no doubt be announced in our next.

J. Pollock Burgwyn, Esq. of Halifax Co. N. C. whose experience in the use of Reapers is not excelled by that of any other farmer in the U. S., has authorized us to propose to increase the amount offered by the Md. State Agr. Society to $200, as the premium for the best Reaper that may be exhibited at the coming harvest, to the committee appointed to test their relative value—or if 7 others will unite with him, he will be the 8th, to raise $400, in addition to the $100 offered by the Society—making the prize $500. If there are any public spirited farmers disposed to meet this proposition, they will please signify the same to the Editor of the Farmer, so that it may be announced in our May No.

Mr. Burgwyn's wheat crop, last year, reached nearly 14,000 bushels, which he has shipped to Liverpool—It was all cut by Hussey's Reapers, of which he has several, and has just ordered more for the coming harvest. He has been using them for years.

"VERMONT" HORSE.—We call attention to the advertisement on another page, of the horse "*Vermont.*"—R. H. Hare, Esq. of Ellicott's Mills, has recently introduced this fine Stallion into this state from the North, and we hope his public spirit will be suitably acknowledged, by a liberal disposition on the part of those who are to be benefitted by it—We have seen "*Vermont,*" and have no doubt that the advantages particularly claimed for him, of strength and swiftness combined, will be fully realized in his progeny.

BEVERLY.—Mr. Key, of St. Mary's, not having disposed of his horse Beverly, it will be seen by his advertisement, that he has made arrangements for his use this season in St. Mary's.

The Farmer's Monthly Visitor.—We have received the first number of a journal bearing this name, published by Rowell, Prescott & Co., Manchester, New Hampshire, and edited by *C. E. Potter.* The number before us is well filled with agricultural and miscellaneous matter, is gotten up in handsome style, evinces taste and neatness in its mechanical execution, and talents, industry, and judgment, on the part of its editor. We greet its proprietors and conductor, with the hand of friendship, and wish them a successful career.

The Northern Farmer.—From Utica, New York, we have received the first number of a monthly agricultural journal, which has been just commenced there, bearing the above name. It is edited and owned by T. B. Miner, Esquire, the author of a work on the management of bees, and filled with practical matter. Success to the enterprise.

New York Farmer.—The first and second numbers of a new agricultural paper with the above name, has come to hand. It is published at Rome, New York, and edited by E. L. Comstock. The sheets before us give evidence of talents, industry, and practical knowledge, and we tender its conductor our best wishes for success.

The Working Farmer.—This valuable Agricultural journal has just entered upon its fourth volume. Its accomplished editor, professor Mapes, conducts it with singular ability, and gives to it a scientific character which is at once refreshing and instructive.

ANSWERS TO CORRESRONDENTS.

Our Correspondent at Fayetteville, North Carolina, is informed that the white gourd seed is generally considered the most productive corn, and that it can be had of Sinclair & Co. of this city, or of any of the other seedsmen. He must, however, bear in mind, that as the corn plant is a very voracious feeder, a large yield can only be calculated upon when the ground is very rich, or very heavily manured. We have raised at the rate of 128¼ bushels of excellent corn per acre, of the much derided "Tree Corn," a variety denounced as worthless by some, and which, at present, has grown out of fashion. We succeeded, not because our land was very fertile, for it was not, but because we manured it with a generous hand, had it ploughed deeply, and perfectly pulverized, kept the soil open and clean and free from grass and weeds, and did not lacerate the roots with the plough. There are among the conditions necessary to success in growing corn, some which should never be lost sight of, namely, thorough prepartion of the soil, plenty of good manure, and an auspicious season.

To the question whether the *potash* of the shops will answer in the place of ashes, we reply, it would furnish potash as well as ashes, but that the latter would supply oxide of iron, oxide of magnesia, lime, magnesia, potash, soda, sulphuric acid, phosphoric acid, chlorine and carbonic acid—in a word, everything of an inorganic nature needed by the plants; hence then, we infer that no single element which exists in ashes, can be as good as the substance itself. A bushel of *unleached* hardwood ashes will yield 5½ lbs. of potash—a bushel of leached ashes about 1 lb.

A very good substitute for ashes, may be found in the following mixture, which would be sufficient to manure an acre of land, so as to prepare it to produce a very good crop, and to bear a rotation:—

4 bushels of bone-dust,
20 lbs. of Copperas,
100 lbs. of Epsom Salts,
20 bushels of slacked lime,
20 lbs. of Potash, and 2 bushels of salt,—

to be mixed with a load or two of river, creek, marsh mud, or woods-mould, spread on the ground, after being thoroughly shoveled over, and harrowed in.

Two hundred pounds of guano and half a bushel of plaster per acre, ought to ensure a profitable crop of beets. We would give the land the benefit of two ploughings and harrowings, and as many rollings. The first ploughing should be 8 inches deep; it should then be harrowed and rolled, and guano sowed broadcast, ploughed in 4 or 6 inches, the ground then harrowed and rolled, preparatory to drilling in his seed. The guano would be all the better, if a load of river mud, or some kindred substance, were mixed with it and the plaster.

RING BONE.

"A Subscriber" asks us,—"*What is the most certain cure for Ring Bone in Horses?*" Our reply is—we believe there is *no* certain cure.

Mason, in treating of this disease, says :—

"The ring bone partakes of the nature of the spavin, and frequently proceeds from the same cause. It makes its appearance on the lower part of the pastern, and sometimes immediately opposite the coffin joint. It is a hard and bony substance, and generally reaches half way round the ancle, which gives to the ancle an unnatural appearance, and causes the horse to go stiff and lame. Its name has proceeded from its resemblance to a ring. It seldom admits of a cure, consequently a horse diseased with it is worth but little."

"When the ring bone *first makes its appearance*, blisters of flies have sometimes been employed with success. But after growing to full size, and remaining some length of time, to offer a remedy would be deceitful and presumptuous."

"*Remedy*,—A strong preparation of corrosive sublimate added to Spanish flies and Venice Turpentine, and mixed with hog's lard, will often dissolve a ring bone."

Cole, in his work on the *Diseases of Animals*, has the following :—

"The sinovia or juices of the ancle or fetlock joint, are made to flow or leak from the joint, and are at first collected into a small sac at the back part of the fetlock joint; thence it is conveyed by two tubes to each side of the foot, where it gradually forms a callous or ring bone."

"Symptoms. Lameness is sometimes the first intimation, that we have of ring bone, which may be ascertained by passing the hand down over the part affected.

Remedy and Prevention. A cure is difficult; some say it is impossible; though something may be done to relieve. Shear the fetlocks, and then make an incision through the skin, and extract the sac above named; and at the same time take care to destroy the communication from the joint to the ring bone, by cutting off the tubes. If skilfully done, the horse will be fit to use in a week. The bone may be prevented by performing this operation before the animal is affected in this way; but if lame when the operation is performed, it will require from one to twelve months to recover wholly."

"*Another Remedy*. Clean and dry the parts affected. Then rub on it, well into the hair, some good common house soap, and dry it in with a hot iron, but not so hot as to burn. Try this three mornings, and if a cure be not effected, repeat it. It is perfectly safe."

To the question which "A Subscriber" asks about *lice* on hogs, we say, that, if moderate portions of flour of sulphur be given in the food of his hogs, and they be kept in dry, clean, well littered pens, the lice will be destroyed. If hogs be well fed and kept clean, they will not get lousy—their beddings should be renewed at least once a week—filth and insufficient food, are the parents of lice. A good coating or two of soft soap will destroy them. *Cole's* work on the "*Diseases of Domestic Animals*," generally, is probably the best. "*Mason's Farriery*" on the diseases of horses, we prefer to all others.

For Sprains of Animals.

Mix together ½ pint soft soap,
1 oz. of the oil of Origanum,
2 oz. Spirits turpentine,
2 oz. spirits camphor,
½ pint strong Vinegar,

and rub the limb affected thrice a day for a few days, taking care before each rubbing, to wash the part with warm water and castile soap, and drying it with a cloth before each rubbing.

Conversion of Dead Animals into Manure.

Our correspondent who writes from the "*Royal Oak*," is informed, that he can convert his dead animals into the very best manure, by simply cov-

ering them up with marsh mud, river mud, wood's-mould, or mould of any kind, if he will take the precaution to spread plaster over it. A dead horse or ox would convert 20 loads of such substances into as good manure as ever was applied to the soil. The way to form the compost would be, to cut the animal up into conveniently small pieces; form a layer of the earth used some six, eight or ten inches deep, distribute the pieces of flesh over it, cover that with another layer of earth, then strew plaster over it, then other portions of flesh, layer of earth and plaster, until the materials are exhausted; the last layer to be earth, over which plaster should be strewed, and the mass patted down with the back of a shovel or spade, and permitted to remain until the flesh is decomposed. As the flesh may be undergoing the process of decay, its volatile part will be decomposed and rendered involatile, or fixed, by the sulphuric acid of the plaster, as well as absorbed by, and infused through the mass of earth, forming the base of the compost. A bushel of plaster is sufficient for admixture with the dead animal and 20 loads of the earth.

When the flesh is all decomposed and incorporated with the earth, he should dissolve the bones with one-third their weight of sulphuric acid, diluted with three parts water to one of the former. When *dissolved*, let him mix them with the other compost intimately, and he will have manure enough to fertilize an acre of ground sufficient not only—if it be wheat soil—to bring him 20 bushels of wheat, but to grow him crops of clover, or any other crops for three or four years to come, and if it falls off in fertility afterwards, the fault will be his own.

White Oak, alias Crawfish land, and Lime.—If the land of our correspondent, who dates from Guiney's Depot,—which he describes as white oak, alias crawfish land, is *not wet*, as it has been long in cultivation, we have no doubt that it would be benefitted by lime, or marl; for we hold it, that *lime*, upon all soils destitute of calcareous matter, must be the foundation stone upon which the superstructure of all permanent improvements are to be made. But lime *alone*, upon exhausted lands, will go but a short way to renovate them. Give such lands a dressing of 50, or even 25 bushels of lime, and a full dressing of some rich putrescent manures,—follow these applications with clover, and we apprehend a cure will be effected. If, however, our correspondent's land should be *wet*, before he undertakes its improvement he should *drain* it, relieve it of its excess of water; for lime, and manures applied to wet lands are but a waste of time, labor, and money.

SUGGESTED IMPROVEMENT OF NEW LAND.

To our Correspondent "*Leonidas*," of Bertie county, North Carolina, we have to say, that if we were able to give him a definite reply to his question, how he shall proceed to improve the productive capacities of his land, it would afford us infinite pleasure. But that, in the absence of an *analysis*, we feel ouselves incompetent to do so, with any degree of satisfaction to ourself. He represents his soil as "fresh," and that it has been in cultivation only two years; that it is neither "stiff nor sandy;" that the soil is about "3 inches, then about 8 inches of grey loam, with a yellow clay foundation," and that its product is about "2 barrels of corn per acre."

For *new* land this product is very small, and as his land is unexhausted by culture, we presume that there must be some defect in its inorganic constituents—some want of an essential element or two; for we cannot conceive that it is possible that the *organic* part could have been abstracted by two years cropping. If we are right in this conjecture, the best thing that he could do, would be, to give it a dressing of ashes, as in doing so he would supply every inorganic element which enters into the structure of plants. The best way perhaps, to use the ashes would be to form them into a compost with marsh mud, woods-mould and leaves, pine shatters, and barn-yard and stable manure, and give to his land a good dressing. Fifteen loads of the first named substances, five loads of stable or barn-yard manure, and 5 or 10 bushels of ashes, would make an ample dressing for an acre. This compost should be formed, layer and layer about, be suffered to remain in bulk for a week or two, and then ploughed in about six inches deep. The land should be thoroughly harrowed, and receive a dressing of a bushel or two of salt, sown broadcast, and rolled in, per acre; when it would be ready for cultivation.

We have given the above mode of treatment, with the view of meeting his circumstances and location, as he appears averse from purchasing costly manures.

If his land is low and wet, *draining* may be what it really wants. As new lands are generally cold, "*burnt clay*," as he intimates might prove highly beneficial, as it would serve to warm up the soil and would probably do to substitute for the ashes. For the mode of preparing clay, we refer him to an article in this day's journal detailing the process.

Clay Burning.—In compliance with the request of a Subscriber in North Carolina, we give the following mode of burning clay, it being the improved method pursued by the celebrated Mr. *Craig* of Scotland.

"Make an oblong enclosure, of the dimensions of a small house—say 15 feet by 10—of green turf raised to the height of 3½ or 4 feet. In the inside of this enclosure air-pipes are drawn diagonally, which communicate with holes left at each corner of the exterior wall. These pipes are formed of sods put on edge, and the space between so wide only as another sod can easily cover. In each of the four spaces left between the air-pipes and the outer-wall, a fire is kindled with wood and dry turf, and then the whole of the inside of the enclosure or kiln filled with dry turf, which is very soon on fire; and on the top of that when well kindled, is thrown on the clay in small quantities at a time, and repeated as often as necessary, which must be regulated by the intensity of the burning. The air-pipes are of use only at first, because if the fire burns with tolerable keenness, the sods forming the pipes will soon be reduced to ashes. The pipe on the weather side of the kiln only is left open, the mouths of the other three being stopped up and not opened except the wind should veer about. As the inside of the enclosure or kiln begins to be filled up with clay, the outer wall must be raised in height, at least 15 inches higher than the top of the clay, for the purpose of keeping the wind from acting on the fire. When the fire burns through the outer wall, which it often does, and particularly when the top is overloaded with clay, the breech must be stopped up immediately, which

can only be effectually done by building another sod wall from the foundation opposite to it, and the sods that formed that part of the first wall are soon reduced to ashes. The wall can be raised as high as may be convenient to throw on the clay, and the kiln may be increased to any size by forming a new wall when the previous one is burnt through.

The principal art in burning consists in having the outer wall made quite close and impervious to the external air, and taking care to have the top always lightly, but completely covered with clay: because if the external air should come in contact with the fire, either on top of the kiln, or by means of its bursting through the sides, the fire will be very soon extinguished. In short the kilns require to be well attended, nearly as closely as charcoal pits. Clay is much easier burnt than either moss or loam;—it does not undergo any alteration in its shape, and on that account allows the fire and smoke to get up between the lumps;—whereas, moss and loam, by crumbling down, are very apt to smother the fire, unless carefully attended to. No rule can be laid down for regulating the size of the lumps of clay thrown on the kiln, as that must depend on the state of the fire. After a kiln is fairly set going, no coal or wood, or any other combustible is necessary, the wet clay burning of itself, and it can only be extinguished by intention, or the carelessness of the operator, the vicissitudes of the weather having hardly any effect on the fires, if properly attended to. When the kiln is burning with great keenness, a stranger to the operation may be apt to think that the fire is extinguished: If, therefore, any person, either through impatience, or too great curiosty, should insist on looking into the interior of the kiln, he will certaintly retard and may possibly extinguish the fire:—the chief secret consisting, as before mentioned, in keeping out the exterior air."

SWEET POTATOES—ANALYSIS, &c.

A subscriber at *Chuckatuck* desires us to give him the "*Analysis of the Sweet Potato, and the compound mixture that would ensure a good crop on land that is not clay, but a stiff loam.*"

We comply cheerfully with the first of his requests, and would, with equal pleasure, do so with the second, if it was practicable to so change the nature of his soil as to make it suit the wants of the Sweet Potato. Theory and practice both teach us that this root delights in a *deep sandy soil*, and that such a soil is required to produce it in perfection. Now, it so happens, that the "*stiff loam*" of our correspondent is the very opposite of this, and we are very certain, that there is no "compound mixture" within the skill of the most expert chemist, that could so break down the texture of his soil, as to make it adapted to the growth of the sweet potato by any sudden process. All the sweet potatoes that we have ever seen grown in STIFF soils, have been, as the phrase is, *sobby* or *watery*, and did not possess that dry, mealy, and sugary quality, which renders this delicious vegetable so general a favorite. Stiff soils may be rendered comparatively friable—their tenacity may be broken down to a considerable extent—by applications of lime, marl, ashes, the application of long manure, or by the ploughing in of green crops and clover leys, and deep ploughing and thorough cultivation in hoe-crops; but to effect this change, years are necessary—backed by much patient labor and sound judgment.

THE ANALYSIS OF THE SWEET POTATO.

Professor Shepard, of South Carolina, gave the following inorganic constituents in 100 parts of the Sweet Potato:—

Carbonate of Potash with traces of soda,	60.00
Phosphate of Lime, (bone-earth,)	14.57
" of Magnesia,	5.60
Carbonate of Lime,	5.37
" of Magnesia,	3.80
Chloride of Potassium,	4.10
Sulphate of Potassa,	4.35
Silicia,	.70
Chloride of Calcium, Sulphate of Magnesia and Lime, Alumina and Oxides,	.99
	100.

Looking at the above analysis, it is an easy matter to determine what are the wants of this root, in the shape of manure, and what would ensure a good crop, provided the soil was congenial to its habits. With the addition of 10 bushels of *unslaked* ashes, to the ordinary quantity of barn-yard or stable manure, applied to an acre of land, every substance needed by it may be supplied; for in that quantity of ashes, all may be found, while the manure would furnish the nutritive portion of its food, and incite vigorous growth. The sweet potato does not require heavy manuring; and if manured in the hill, 10 cart loads of compost would be sufficient to go over an acre, as it would allow half a gallon to a hill, provided each load contained 30 bushels, the usual quantity contained in a double horse-cart load.

A good compost might be formed thus, for an acre of land to be cultivated in sweet potatoes:—

Five loads of barn yard or stable manure; 5 loads of woods-mould and leaves, or pine shatters; 10 bushels of unleached ashes.

The whole to be mixed well, and left in bulk a few weeks before being used, care being taken every ten days, should the weather prove warm, to shovel over the mass.

We have said that 10 loads would be sufficient for an acre *manured in the hill*, and we will add, that the same number of loads would be sufficient for broad-cast manuring.

A very good compost might be formed thus:—Three loads of barn-yard or stable manure; 3 loads of woods-mould, and leaves or pine shatters; 4 loads of marsh mud, and 10 bushels of *unslaked* ashes. To be treated as before suggested.

HUSSEY'S REAPER IN DELAWARE.

To the Editor of the American Farmer.

SIR:—Seeing it stated that Hussey's Reaper could, or did cut 15 acres per day, at some of the trials in England, induces me to state to you of at least one of its performances in Delaware. One of my neighbors, a young man weighing over 200 lbs., superintending his own hands from his saddle, last harvest cut 80 acres of good wheat, in three and a half days; this is the third season that Mr. Ellison has cut his own harvest with Hussey's Reaper, without one dollar for repairs, and it is now in good working order. The machine is of medium size, and I think cost $130. I have often heard of greater work for one or two days at a time, by the reaper. Hussey's Reapers are in extensive use in Delaware, and have been for the past six years.

JOHN JONES.

[The Notes of the third letter of our correspondent were made last summer, but pressing engagements prevented his transcribing them for the press with the others; and the crowded state of our columns more recently, has deferred the publication to our April number.—*Ed.*]

NOTES OF AN EXCURSION INTO SOME OF THE EASTERN COUNTIES OF VA.

Letter 3d.

The Estate on which are the remains of James Town, belongs to, or constitutes a portion of Clermont; and if my information is correct, is one of the largest and most valuable on the James River. Its value is not estimated by thousands, or tens of thousands, but by hundreds of thousands of dollars. I have heard the estate of the individual alluded to, and recently deceased, estimated at from five to eight hundred thousand dollars; this information may, or may not be strictly correct; but there is no doubt that far the greater portion of this immense property remains in the hands of a single heir, a relative only of the deceased. Some of the Estates bordering on the river, are still held by descendants of the old, if not original settlers; but far the larger portions, as you may readily suppose, have passed into other hands; possessing possibly more energy and business tact.

By taking the cars at Richmond, instead of the steamer, I missed seeing some fine estates,—Curles, Bremo, Turkey Island, &c. &c., between there and City Point, a distance of some 45 to 50 miles, by water; at least they were so considered more than 30 years since, when I last visited this section of country. It is not likely they have deteriorated since, with such enterprising neighbours adjacent to them.

If I have observed sections in the "Old Dominion" that appeared lacking in enterprise and good farm management, there are portions of others that would compare favorably both in crops and good husbandry, with any of the middle or northern States that I have travelled in; and if less general, they are evidently on an improving scale.

After many years' observation, and considerable travel both in the Slave and Free States, as they are termed, I have arrived at the conclusion that several causes operate strongly to retard the improvement at the South;—tho' perhaps it may be said, that some are consequent upon the others,—the effect of a cause, rather.

A large portion of the landed Estate at the South is in comparatively few hands; it is quite a common thing to meet with the owner of 800 to 1000 acres; and there are many others again, who own their thousands; literally, in the language of the Poet,

> "I am monarch of all I survey,
> My right there is none to dispute;"

and in many cases, large portions of it, of comparatively unproductive land, which does not produce one-half, or even one-fourth of what it might be made to yield.

In nine cases out of ten perhaps of such, the labor is performed by slaves, who of course generally do as little work as they can't avoid; and however scant may be the product of their labours, they must be fed and clothed. Hence the imperative necessity of cultivating a large extent of poor land under such a system, for the "staff of life," to supply the wants of the poor master as well as the poor slave, for they are sometimes poor together. If any choice between them, the situation of the former, is often about as much a subject of commisseration as the latter, who gives himself "no care to provide for to-morrow," and is at least free from anxiety and trouble. If this system of farming has not impoverished the lands, it is not very likely to restore them to their natural fertility.

I am no advocate for the institution of slavery,—never have been, nor ever expect to be; indeed I am utterly opposed to the whole system, both on the score of principle, policy and education: but at the same time, I cannot close my eyes to the difficulties that surround those who have them; many of whom would gladly be rid of the burden. Having been born and raised in a slave State, I can speak as advisedly perhaps, as those over zealous but good intentioned persons who know nothing practically on the subject; many of whom probably never saw a slave, except as a fugitive from justice, or a runaway.

No one I presume, will question my right to entertain these views, and to make them my rule of action, so long as they do not improperly interfere with the views and rights of others;—rights as clearly defined and acknowledged by the laws of the land as are my own. But my neighbour entertains different views on the subject, and in many cases, quite as honestly, no doubt; if he has no right,—and he clearly has none, to censure and condemn my course, I have just as little, to load him with calumny and abuse, and by underhanded means endeavour to deprive him of what he considers his rights and social privileges.

That many of the Farmers and Planters in Maryland and other Southern States are quite sensible of these drawbacks to their prosperity, I am fully satisfied both from observation, and personal knowledge. Admit for argument's sake, the deleterious effects of slavery to the farming interest generally,—and it must be admitted in fact, if the increase of population, enhanced value of land, and the general prosperity and wealth of the free States, is the criterion to judge by—what is the remedy? Set them free at once, say our over zealous friends at the north,—nothing easier than to get clear of them. But say the masters in reply, we know that in doing so, we give away the most valuable portions of our Estates, and some of us, nearly or quite all of our patrimonial inheritance; and we are willing to do so; but experience has satisfied us that it will not do to turn them off in our midst in large numbers without suitable provision for their support; it will neither benefit them, or us; nor are we able to provide means to send them away. You do not want them settled around you; and indeed most of your people and several of your Legislatures prohibit their colonization, or even admission, into the Free States. But if you will aid us with your surplus funds, to colonize them in Liberia,—the only country as it appears to us, where the African race can enjoy the blessing of real liberty and freedom—we will liberate them as fast as you will provide the means of doing so. That this would be done, I have not a shadow of doubt; nay more, that many of those liberating their slaves and having the means, would also provide for their removal, if there was a reasonable prospect of effecting a public good thereby. Cases in point, and in illustration of these views, have occurred. The slaves, a large number, manumitted by the Will of John Randolph, and provided with ample funds, were colonized in one of the

free States; with what results, all may not be aware. If my information is correct, many of them have been driven off, and dispossessed of a large portion of their lands and homes; and some of them, even suffering for the necessaries of life, which they never felt on the banks of the Roanoke. Another, is a case of quite recent occurrence; a wealthy individual in one of the counties passed through, at his death manumitted all his slaves, 90 in number; and as I learned, made provision in his will, if they could not remain in Virginia, to colonize them in Africa.

That there are many who honestly cling to the institution, as one of their vested rights, under all the force of education and habit, and who perceive nothing wrong or demoralizing in its tendencies, there can be no doubt; and I have just as little doubt, that a much greater number of those who hold slaves, mostly by inheritance, and the gradual increase in numbers, clearly perceive, that the possession is undesirable, if not unprofitable in every point of view, and would willingly see the country clear of this class of population. Yet these very individuals do, and will oppose, what they consider an infringement on their rights. It is in our nature, more quietly to submit to an unavoidable pecuniary loss, than to yield to an actual, or even a supposed attempt, to take undue advantage of the terms, or fulfilment of a contract.

From intimate personal relations with slave holders, for many years, and in Virginia particularly,—some of them near relatives, I am firmly persuaded that the cause of Emancipation has been retarded full a quarter, if not half a century, by the over zealous and indiscreet efforts of many in the cause, —however well intentioned some of them may have been. All of the reflecting portion of its advocates must admit, that from the tone of public feeling in the free States, colonization there, or indeed on this continent, is utterly out of the question. Surely no sane mind can entertain the idea that slaves can be successfully colonized in any portion of the Southern States. It is even more preposterous than the supposition, that one of the States of the confederacy can carve out an independent Kingdom or Government in their midst, and still move on harmoniously, and in unity with the rest of the Union; the attempt would prove even more futile and disastrous in the one case, than in the other.

Emancipation, if ever thoroughly accomplished, must be prospective and gradual, to be effected without convulsion; and it must be brought about mainly by the efforts of the slaveholders themselves; enlist them in the cause,—and many are already its strongest advocates—by reason and argument, not widen the breach by force and vituperation, and we may expect to see good effected: but so long as individuals or sections, attempt to coerce others who have equal, and as clearly defined rights by the laws of the land, the effort will be met by countervailing measures. We now witness the result of such a course in the alienated feelings of the North and South, and the embittered strife that in some degree pervades the whole country. I for one, can only see its blessings foreshadowed on the African race, by colonization on the soil, and in a climate, that an All Wise Creator has apparently destined them to occupy, and in which to enjoy the fruits of their own labours; but from which, the cruelty and rapacity of the white man has torn them away. There is much due to the African race from the European. They have not voluntarily expatriated themselves from the land of their forefathers; and if less enlightened in an abject state of bondage than the Caucassian, or even some of the Indian races, is it any marvel? That they quite as readily adapt themselves to the arts and usages of civilized life, as the roaming and wild Indian of the Western prairie, is susceptible of easy demonstration; and that they are any more savage in their natural habits and propensities, I am slow to believe.

I have often witnessed strong attachments, and mutual too, in the families where humane and kind treatment predominates, from the master to the slave,—in fact I rarely ever knew it otherwise: where it is so, the cause is so apparent, that it may almost be considered an exception to the rule: for human nature is the same everywhere; nor are our propensities changed by the color of the skin.

Instead of attempting to coerce public opinion at the South, by inflammatory addresses, and disseminating incendiary publications, which can do no possible good, but necessarily tends to insubordination in the slave, and the tightening of his bonds, convince the judgment of the master that it is more to his interest, as well as more conducive to his comfort and happiness, to employ free labor, and a strong hold will be gained in the cause that these philanthropists have so much at heart. If not done in this way, it may well be doubted, whether it will soon be effected in any other. It is truly a Herculean task to cleanse this Augean stable; and it will require the united wisdom and co-operation of the whole country. The subject is a momentous one; and it often presents to my mind in another aspect. If the advocates for immediate and unconditional abolition, would only endow a few seminaries of learning with their surplus wealth, to educate and enlighten the descendant of the poor African who is voluntarily manumitted, it might prove the most certain and sure means (if it is not the only possible mode) to civilize, and spread the blessings of Christianity over Africa, the most benighted region on the Globe. Less money would effect a great good in this way, and educate a hundred colonists, than has been vainly spent to free half a dozen slaves by illegal means. It would also tend to immortalize their names in the cause of humanity, instead of sowing the seeds of discord and strife, broadcast over the land. As the real friend of the coloured man, already free, as well as those who may be manumitted hereafter, and with no object but for his permanent good, I would urgently advise, and aid Colonization, as the most certain means of benefitting his condition. Here, he can never occupy other than a subordinate, if not a degraded position. In Africa, the case may be far different;—indeed it is already so, and with every prospect of the increasing prosperity and happiness of such as have had the wisdom to make the election. But to force the free negro at once from our soil wholly uneducated and unfitted for his new position, by stringent acts of Legislation, in order to benefit the slave interest and perpetuate if not extend the Institution, would be as unwise as it would be unjust;—no better than the wildest scheme of the most visionary Abolitionist. It would under existing circumstances, be an act of oppression both on the unoffending negro, and those who are unwilling to hold slaves;—but who are much dependant on his services in Agricultural operations. Such a course may arouse a spirit of retaliation on the

part of non slaveholders, even in some of the slave states,—not less powerful, because quiescent, when forbearance on all sides is wisdom, and when union alone can give strength to devise and carry out some plan, that may radically settle this all absorbing and exciting question.

But enough of this subject, into which I was insensibly led, and off, from the one more immediately under consideration,—the cause of the lack of improvement in Southern lands in equal degree with the North and East. This is one of the main causes perhaps; and as a general rule, where the farms are divided and sub-divided into two to four hundred acres each, improvement is more rapid, expenses less, and the profits greater in proportion to the amount of capital invested; that we may occasionally see a large estate equally well managed and equally profitable, is no argument against the general correctness of the position.

The long continued practice, even from Colonial times, of the extended cultivation of Tobacco, has also proved a fruitful source of injury to the soil. It may be truly said that it is greatly owing to this ruinous system, together with its necessary accompaniments, that we witness the blighted prospects on what was once the fairest portion of our own, and a neighboring State. Within a few years, I have seen the picture——of desolation, I was going to say, and often painted in such vivid colors too, that I am tempted to raise the curtain a little. In passing through many Districts, no one can fail to observe thousands of acres that are almost literally lying waste,—certainly in any thing but a productive or profitable state; and you need be at no loss to divine the cause. In portions of the long cultivated Tobacco Districts, both in Maryland and Virginia, you may often see the pasture fields almost as bare of vegetation as the main road over which we travel, briars and bushes excepted; the stock, if perchance it should happen to be of the "improved breeds," looks about half starved,—for not being raised on poverty grass, the change of location does not change their nature also; out buildings of a perishable or temporary construction, and often in a dilapidated state; indifferent fencing,—abominable gates, that one has to alight from his horse to *prize* open, or *unchain*, even if it has a fastening of any kind, other than the *power of gravity*. Now change the scene, tho' sometimes in the same neighbourhood, but where the tobacco culture has been abandoned, and the proprietors have turned Farmers instead of Planters. We may here often find luxuriant clover in the place of poverty grass, and briars,—fences in order; for *now* there is something within the enclosures to entice the "ill-favored kine" of a less thrifty neighbour; and even if the buildings are yet the same, they are often neatly painted, or whitewashed, and present a light and cheering view to the eye of the traveller. But it is unnecessary to go on with this picture;—a *fancy sketch* if you choose so to term it; but unfortunately with much more of fact than fiction about it.

Do not understand me as intending to convey the idea, that I have nowhere witnessed the union of good farming and planting; it is occasionally met with, but the instances are "few and far between" in comparison with those of an opposite character. Neatness, good taste, and good management, are occasionally met with, about the homestead and domain of the veteran Planter, and where he has a strong force, and has "time to attend to these little matters;" but in such cases, even the planter himself is often the first to condemn the cultivation of tobacco as incompatible with much improvement in his land; and was rather "winding up" a business that had ultimately proved of little profit; and although he might have added something to the number of his acres,—and yet more rarely, by indomitable energy, to his pecuniary resources—it was usually at the expense of the general fertility of the whole. In some sections, the soil is naturally so productive that it can stand this usage for a series of years; but I have seen much land, once quite as fertile, now lying waste and in commons;—barely yielding to the present owners, the amount of taxes annually levied on it.

The Tobacco interest is doubtless one of considerable magnitude to the country; but it may be strongly questioned whether in a great majority of cases, it would not be more to the best interests of the *Planter* to devote more attention to the permanent improvement of his land. The Planter must have *corn;* and with even a partial failure in his tobacco crop, he is often pinched and compelled to deal out the staff of life with a sparing hand to his stock, if not to those who have "to bear the heat and burden of the day."

My visits, limited as they have been of late years, both in extent and duration, have yet afforded many opportunities to see, and to profit by the intelligence and experience of others; go where you will, the observing and enquiring mind will often gain instruction. The individual who thinks he knows every thing, is often the one who really most requires the aid of the schoolmaster: a single mind may be, and often is, the store house of great learning and varied acquirements; yet in the simple every-day concerns of life, he is often at fault;—a mere child, to the self-taught genius, who is compelled to rely on his own resources, to meet the emergencies of his case.

In travelling some years since—*where*, it does not matter at present,—my attention was arrested by a gate of rather unusual appearance; the bars and heads were made of round pine poles, and the braces, in part if not entirely, kept in place by hickory wythes, or grape vines; not a particle of iron—not even a nail about it; nor was there the evidence of other tools used in its construction, than an axe and an auger: yet with all its unpretending appearance, it had the best, and most effectual fastening to turn unruly swine, that I ever met with. The catch was simply turned *upside down*, and the latch instead of falling into it in the usual way, was placed underneath, and so balanced, as to rise to the catch: raising up the gate by the *snout*, only tended to make the fastening more secure. Having been much annoyed by a mischievous animal belonging to a neighbour in opening a gate, the plan was adopted (with a slight improvement in the catch) and with perfect success,—obviating all necessity for chaining the gate near the bottom.

Although I am travelling by the aid of steam, my pen appears to move with a snail's pace only; and we must quicken it, or shorten the trip. The country generally, on both shores, after passing James Town, has less elevation near the water;—more alluvial and unreclaimed marshes, and I should judge is less healthy in consequence; tho' perhaps it may be equally fertile. There is however, less to interest the traveller as you approach

the mouth of the River,—being at times some miles in width, and without the indications of fine crops, mansions, &c. recently passed. About 5 P. M. we arrived at Norfolk, after touching at Old Point to land passengers: it being my intention to visit Old Point, Piney Point, and also make an excursion into St. Mary's County, on my return from the Dismal Swamp, I did not land.

I am disappointed in the general appearance of Norfolk—quite so: few vessels larger than bay craft at its wharves; and if correctly informed, but little shipping belonging to the Port, tho' so near the ocean, and so fine an harbor. A number of good buildings have recently been erected, yet it does not present the business aspect and improvements about Richmond. Take from Norfolk and Portsmouth the Government interest, and if not robbed of their good name, they would lose the PURSE, "trash" tho' it might be in the estimation of the bard of Avon.

The weather is so intensely hot during the day, that there is little comfort in locomotion: nor can one enjoy the sea breeze at night, without the intervention of *bars* and bolts, by reason of a lawless set that infest every nook and corner of the place. The citizens however, claim for the credit of their towns, that these marauders,—this *floating population*, do not belong there; and only *now* and *then* venture upon an excursion,—a little foraging party, as it were, and which they made light of; but as I thought, rather done for effect. Two nights sufficed for me, as it was "paying too dear for the whistle." The information that further south, the traveller fares still worse from this *blood-sucking* gentry, deterred me from venturing into their *strong holds*.

In hospitality and kind attention to strangers, Norfolk is unsurpassed by any section visited;—indeed this trait of character is proverbial. There is much attention given and taste displayed by its citizens, in ornamenting their enclosures with flowers and exotic plants,—many of them now in full bloom; some of them of rare beauty and new to me. Others again, that I have in vain endeavored to propagate in the open air, here flower and fruit in luxuriance. To the eye of one accustomed to our rolling lands, the level sandy country around Norfolk does not present much of interest,—either on the score of fertility (the market gardens excepted) or the monotonous forests of pine.

Through the kindness of the friend alluded to, from Charles City, I received a message from Lieut. S. of the "Big Canoe," as Black Hawk called the Pennsylvania, that his barge would leave the wharf at a certain hour, and it would afford him pleasure to show me over the ship. Having a spare hour, I availed of his kind offer; for the view of this Leviathan of the ocean at a distance, had not equalled my expectations; tho' quite familiar on a very small scale with the drawing and perspective of ships.

No one, not practically familiar with Naval Architecture can at first correctly appreciate her gigantic size;—the perfect symmetry and just proportion of hull, masts, spars, &c., will deceive an unpracticed eye; and it is only by comparison that a correct estimate can be attained. Comparing the Pennsylvania with the St. Louis of 1,000 tons, gives some idea; but in rowing round the ship you get a better one, tho' still indefinite; and until the *eye* measures something of known dimensions, one is still at a loss. The figure head for instance, *appears* to be some 4 to 5 feet in length, when I was assured it was *ten* feet. Annexed is a sketch of the general dimensions.

Her tonnage, carpenter's measurement, is 3,366 tons; length over all on the rail, 224 feet; extreme beam 58 feet; from false keel to top of hand rail, over 60 feet; height of mainmast 154 feet from step to mast-head,—about 5 feet diameter on main deck, and constructed of separate timbers, securely banded together; whole height of main mast, including main-top-mast, top gallant, royal, and sky sail masts, 279 feet. Main mast yards in the aggregate, 304 feet in length. The main sail requires 1,500 yards of canvass. There are four decks, Spar, Main, Middle and Lower decks: 144 ports, and mounting with her stern and bow chasers 156 guns—12 Paxhans, the rest 32'ds. What an engine of destruction! a single discharge of all her batteries, guns double shotted, would throw nearly five tons of balls!

Humanity, however, is not likely to shudder at her exploits on the ocean. She is too unwieldy,—so say nautical men, admirable and beautiful as she is, as a specimen of art; her full compliment is about 1400 men. The Pennsylvania is in effect little more than a play thing,—a toy, for "Uncle Sam," tho' on a grand scale, it must be admitted. If the money thus uselessly expended, had been devoted to educate and enlighten the rising generation,—to add to the sum of human happiness, rather than entail destruction and misery, how much more to be commended? or if even a tithe of the cost had been appropriated to the establishment of an Agricultural Bureau,—(recommended and urged upon Congress by most, if not all our best Presidents from Washington down)—to aid in the most useful and necessary of all employments, how much more good,—real pratical advantage, would it prove to the country? It is indeed strange,—passing strange, that not one member of Congress from any of the States, with the disposition and influence combined, has yet been found to carry through so desirable a measure.

It is any thing but to the credit of our rulers, that for the only scheme, national in its bearing, and for the "diffusion of knowledge among men," we are indebted to the munificence of a private individual;—an alien to the country, but not to the cause of science and learning. Whilst commerce, manufactures, internal improvements, and a host of minor interests are more or less provided for and protected, the one great interest, AGRICULTURE, on which all others depend for existence itself, is permitted to languish, or rely on individual enterprise, or the inefficient aid of our State Legislatures; little better in most cases are the latter, than leaning for support on broken reeds. If one interest, however important some may consider it, has a hobby like the big ship, and to the tune of half or three-quarters of a million of dollars at least, it would be no more than fair, that other interests should have a trifle for *experimenting*, when money is thus spent,—squandered I was about to say, for all the practical good it proves to the country. I am tempted to ask, what great boon has been granted to the Farmers and Planters for a quarter of a century? I know of none, but the pittance in the Patent Office Report; and the lesser one still, of the reduction of a few thousand dollars duty on Guano; both of which tend almost equally to the benefit of the consumer, as to the producer. If the Farmers are content thus to permit their interests to be made subservient to party,

and to the personal aggrandisement of political aspirants, and be satisfied with the crumbs,—even grudgingly distributed too, they deserve the measure of justice that is meted out to them.

From the Penna., I was landed at the "Yard." There was much here to interest; and to exhibit what mind can accomplish, when directed and guided by science and skill. The Dry Dock is indeed a magnificent structure; large enough to receive the Penna. It was occupied by a vessel of large class; and another of about equal size (a steam frigate I believe) requiring repairs, the latter was promptly and in a few hours, placed "high and dry" in the Yard. My visit was too late to witness the feat; and which would have been one of great interest to me, to see the appliances of block and tackle, levers, &c. that could accomplish it: but here she stands on dry land, without appearance of "ways" or other means; a pretty forcible illustration of the boast of Archimedes, that he could raise the world, with a fulcrum for his lever.

Indeed every thing here is on a grand scale, when "Uncle Sam" foots the bills: the work shops, —the store houses,—and the vast accumulation of timber, "marked and numbered as per margin," and ready at the shortest notice to build or repair a vessel of any size, and at any point, is evidence of the skill, energy, and attention that this branch of the public service receives; even my old friends the Oxen, of which there are some eight or ten fine yoke, "lodge like gentlemen and show their keep," tho' they work hard, as they are always willing to do, when well fed and well treated, (this however, is more than can be said of *all other animals*). The stable was pointed out as something extra, and it is so; both in extent and arrangement, being a large brick building erected for the purpose, covered with slate, and kept in perfect order; and tho' the feed chest is of *iron*, it is not kept *locked*. I was quite as much interested with the Timber Inspection, as any thing else at the Yard. The officer in charge of this branch of the service, is now engaged in an extended series of experiments to determine the difference of density, and durability, of the various kinds of timber used in ship building, when cut at different seasons of the year; and also the effect of saturating, or filling the pores with different substances in solution; —kianizing it. There are many theories on the subject of the proper time to cut timber, and with few facts to base them on. It is to be desired, that some valuable information may be elicited on this mooted question,—one of great magnitude to the country at large, and to none more so, than to the farming interest. All my experience, after close attention to the subject, and observation of many years, goes to prove its importance: and that midsummer is the best time to cut timber for fencing, if not for all purposes. It has been proved, at least to my satisfaction, by many experiments, and undertaken with the view to determine this point. At this season, the wood of the body of the tree contains less sap, (of course will season in less time) which is distributed to the branches, and is then elaborating the leaves and fruits, as well as also extending the growth;—whether the theory be correct or otherwise, I have no doubt of the result. The usual force employed at the Portsmouth Yard is from 800 to 1000 men,—including officers of all grades: a body of rather unusually fine and intelligent men in appearance; and I cannot close my notes there, without the additional remark, that in courtesy and kindness to strangers, in affording all desired information, they are not surpassed at any of the public works I ever visited; and certainly much before some others met with elsewhere, and "clothed with a little brief authority." True, visitors are at times troublesome, and perchance impertinent; an anecdote is told here of a case in point, tho'

> "I cannot tell how the truth may be,
> I say the tale as 't was said to me"—

A prying individual visited the Penna., and after receiving every proper attention, and being shown what was usually exhibited to strangers, he was not satisfied without an inspection of the officers' private quarters. The officer in attendance politely hinted that these were private apartments, and visitors did not usually inspect them; the rebuff was taken in high dudgeon; and in reply he said, that the ship belonged to the country, and he had as much share in her as any body else, and would go where he pleased. The officer stepped to the taffrail and cutting a small splinter with his penknife, handed it to him with the significant remark, "there sir, is *your share* of this ship, and if you don't quickly leave her, you shall be helped overboard"!

It was my intention to visit the Naval and Marine Hospitals, the refuge of the disabled and worn out, but open hearted tars; but was too limited in time. The former is a large and quite imposing building; and said to be under superior management, as one might expect, or as it ought to be, from the character of the founder.

Norfolk however, in its institutions for the benefit of the citizens, has one, that may well be followed elsewhere;—the "Norfolk Provident Society." The charter bears date over thirty years, and its general features may be condensed into a few words, for it is not a secret society. Each member contributes one dollar monthly, or twelve dollars annually, and in a single payment if preferred,—together with ten dollars entrance fee. He may also make additional deposits, if desired. If a member dies within five years, his family is entitled to receive, after the expiration of one year, and under three years, twice the amount deposited; if death occurs after three years, three times the amount of the regular deposit is paid to his heirs; and he can designate for heirs, whom he chooses.

The Report ending March 26th, 1849, exhibits the names of 285 persons who have been members: an extract will show its operation:

Five members contributed each	$356—$274—$169—$83—$53
Paid to heirs at death	$1068—$822—$507—$249—$159
Amount paid to families of 73 deceased members, and incidental expenses,	$32.424.86
Balance in hands of Treasurer, March 26, '49,	25.388.29

The scheme is not better conceived, than it has been honestly and faithfully carried out. In some respects it is preferable to a Savings Bank, as the deposits are not subject to the whim and caprice of the depositors; none feel the contributions; but many have had cause to rejoice at the "Provident" care of their husbands and fathers. Adieu.

S.

EXPERIMENTS IN THE CULTURE OF OATS.

CHEMICAL LABORATORY, V. M. I. }
February 15, 1852. }

To the Editor of the American Farmer—

Certain late European journals contain accounts of some researches on the nutrition of the Oat, undertaken at the suggestion of Baron Humboldt, and conducted with all the care necessary to ensure success. The subject being of importance, and likely to interest all who desire the advancement of agricultural science, I propose to lay an abridged account of these researches before your readers.

The plants on which the experiments were made, were grown in an artificial soil, whose base was sometimes sand, sometimes pounded rock crystal or other forms of quartz, sometimes artificial silica or silex, in two or three experiments artificial carbonate of lime, and in one pounded porcelain. In most of the experiments the base, whether of sand, crushed quartz or artificial silica, was calcined, and very frequently it was digested in hidrochloric acid, and carefully washed to remove all foreign matter, and leave the base as purely silicious as possible.—In one case the plant was grown in the sand without the addition of any other substance, but generally the artificial soil was completed by the addition of *ammonia* in some form, or ammonia and one or more *inorganic* substances.

Sometimes *ammonia* alone was added; at others, *lime*, *magnesia*, *potassa*, *soluble silica*, and the *oxides of iron* and *manganese* were all added, but without ammonia; at others again, ammonia and all the substances enumerated above, except *one* were employed; and finally ammonia together with *all* these substances were added to the base to constitute the soil. In the preparation of these compounds great care was taken to ensure their perfect purity. In the different experiments, the base used was always taken of the same volume; the other matters added were carefully weighed, and thoroughly incorporated with the base, after having been pulverized in a mortar together. The soil so formed, was placed in a vessel made of pure white wax, to prevent the reception of other matters, and carefully moistened with distilled water. In some cases one or more ingredients were dissolved in water, and added in solution.

The experiments were forty-five in number, were varied in every possible way, and the results in each case carefully noted. The principal conclusions arrived at are as follows:

1st. Without additional organic substances, or matters containing ammonia, the oat grows in well calcined sand; its development is normal, but very languishing; it remains small, and derives but little sustenance from the atmosphere.

2d. With the addition of a substance containing ammonia, without addition of inorganic matters, a taller plant is obtained, but without the power of sustaining itself. This, too, receives but little nourishment from the atmosphere.

3d. Without the addition of ammonia, but with the addition of the following seven bodies,

Soluble Silica,	Magnesia,	Sulphuric acid,
Potassa,	Oxide of iron,	Phosphoric acid,
Lime,		

the plant remains small and languishing, as in the first case. The formation of flowers is restrained, and that of the fruit at an end. Its capacity to draw food from the atmosphere is very feeble.

4th. If these seven inorganic matters are mixed with substances containing ammonia, and if they are presented to the plant in a suitable manner, the growth of the plant becomes not only normal, but also vigorous, and now has the power of vigorously drawing sustenance from the atmosphere.

5th. That if one of the above mentioned seven inorganic bodies is wanting, the substances containing ammonia being retained, then the development of the organs is entirely or partially disturbed, or else their appearance is irregular, and takes place as follows:

Without lime, the vegetable dies at the second leaf, without the formation of a stem.

Without magnesia, the stem is languishing, and inclined; color irregular; flowers stunted; no fruit.

Without potassa, formation of a very short, very languishing, inclined stem; no fruit.

Without soluble silica and without potassa, stem very short; color irregular; leaves appear prematurely; no flowers or fruit.

Without phosphoric acid, formation of a languishing, inclined stem; color pale; no fruit.

Without sulphuric acid, no stem; plant dies at their leaf.

Without iron or its oxides, the green color is more or less wanting in the plant, which resembles a plant grown in a dark place; the formation of flowers ceases, or is profoundly modified, which is characteristic. When there is magnesia in the soil, the formation of flowers appears not to suffer so much from the absence of iron.

6th. It would appear that in these seven inorganic bodies consists the constituent parts necessary to oats, and that they are sufficient to the complete development of the flowers, when ammonia is not wanting. The experiments do not positively prove that chlorine should form part of this series; for traces of chlorine were always found in the plants grown in the media in which the accidental admixture of chlorine was guarded against. As to the formation of the fruit, these seven bodies do not appear to be by any means sufficient: it still remains to find, and designate the special substance necessary to fructification.

7th. Soda appears to be incapable of replacing potassa.

8th. Manganese does not appear to be necessary to oats, at least before the formation of the fruit when there is not much iron in the soil.

9th. Too much iron renders the formation of the stem irregular; the leaves are covered with dried brown points, ferruginous stains. The formation of the flowers is rendered difficult, and that of the fruit is stopped. The plant requires a very small quantity of iron, and when manganese is present, it appears that the injurious effect of an excess of iron is avoided.

These experiments while they do not furnish all the information that could be desired in relation to the nutrition of the oat, throw much light upon the subject of vegetable nutrition generally, and point out very conclusively what conditions must be fulfilled in a soil, before it can become productive.—The *constant seven* inorganic bodies, must always be present in the soil in sufficient quantity, and at the same time it must contain matters yielding *ammonia*.

It is contended by some that if a good supply of the necessary inorganic bodies is kept up in the soil, the atmosphere will yield plentiful supplies of carbonic acid and ammonia, but these experiments teach us that such cannot be the case; on the contrary they teach that unless the soil can yield am-

monia, the atmosphere will yield very limited supplies of carbonic acid. The use of guano as a fertilizer, has an important bearing upon that point. If it were principally valuable for its inorganic matter, the Patagonian would be preferable to the Peruvian, but it is well known that in ninety-nine cases out of the hundred, the latter is much the most efficacious in its effects. The commercial value of this manure, is very justly made to depend in a great degree upon the per centage of the ammonia that it contains, at the same time its value is much enhanced by the presence of the phosphates, &c.

Others contend that if they can only get plentiful supplies of putrescent manures in their soils, abundant returns must follow. So they will, if the soil also contains enough of the "constant seven;" but how often do we see that putrescent manures cease to produce the effects they once did. It is not necessary for a soil to become exhausted of a number of the elements necessary to fertility, in order that stable or other manures containing ammonia shall cease to produce beneficial results; its exhaustion of a *single one* will be just as effective in making the soil unproductive, as if it were exhausted of *all*.

These experiments also teach us, that when the soil contains the necessary inorganic bodies, together with ammonia, the *atmosphere* will contribute its proportion to the growth of the plant. The atmosphere is always plentifully supplied with carbonic acid, but it only consents to yield that aid to the plant, when the soil is in the condition to play its part, by contributing every thing else to the plant, necessary to its perfect development.

WILLIAM GILHAM.

PEA CULTURE.

To the Editor of the American Farmer—

I am very glad to be able to aid the agricultural interest in any way, and cheerfully respond to the question of "Agricola," though in doing so, I must differ slightly from you. Unlike the "Green or Garden Pea," the Field Pea is easily injured by the frost, and should not be sown until all danger from that source is improbable. Some of my neighbours who raise early Field Peas, are of opinion that the crop is not forwarded by very early planting, and prefer to wait until the earth has become warm. The pea is a singular plant, and its varieties are almost numberless, (and increasing). I have seen the Green Pea growing luxuriantly on the St. Lawrence, and in such quantities as to induce me to believe it a favorite crop, while the Field Pea is probably adapted to a more southern climate.

Two crops of Yeatman peas can be probably turned in in an ordinary season, and certainly if the first crop is aided by 100 lbs. Guano per acre. The pea is an air plant, and will thrive on moderate land, but like every thing else, will grow faster when well fed—Even the "Pitcher plant," whose roots are fixed in a handful of earth placed in the bottom of a wicker basket, will grow better amid the exhalations of a hot house, where each shrub and flower near is treated to rich manure, and cannot use all the gases. Is not greater bulk and concentration obtained by waiting until the plant is matured? Our farmers think so, and prefer to wait until *some* dry pods are seen on the vines.

The number of grains in a bushel is in proportion to the size of the peas, and of course the quantity to be appplied to an acre, regulated in that way. A bushel of black, 3 pecks of Yeatman, and probably a gallon of Mexican peas would be sufficient to produce a good fallow. All of these are good runners, and should not be sown too thick.

The labor and trouble of saving is perhaps the only reason why peas are not raised. They must be picked by hand to make them fit for market, as they ripen at different times, and are easily injured by "spells" of rain, and a good hand who can gather from 30 to 60 bushels of corn per day, will not save more than one bushel of peas.

The Mexican Pea has been lately introduced *here*. It is cultivated like the other varieties, except it requires finer tilth. I do not know whether it can be obtained in large quantities in market.

If you will heap the vines on an acre of pea-fallow, you will be surprised at the quantity of good manure, and can then appreciate the value of the application. This is true of all green crops, and if this fact was *acted* upon, every farmer might improve his land, however scarce the material for manure, and even those who are wedded to the cultivation of large fields of poor land, would find their barren acres improved, and their labour better remunerated. BRUINGTON.

Sussex Co. Va., Feb. 13, 1852.

MOUNTAIN VIEW, FRED'K. CO.,
2d. Mo. 1st., 1852.

To the Editor of the American Farmer—

Friend Sands:—I have for many years been a reader of thy valuable paper, and with some local reputation as a plain practical farmer. Until the last few years, every improvement in agriculture was the result of a system of experiments, and the benefits confined to the individual, or verbally communicated to a few of their neighbours. Through the medium of thy journal, and the impetus given to the science through thy able correspondents, those difficulties are measurably removed. The experience and scientific researches of a whole community are presented to every one at a very trifling cost;—For much valuable information I am indebted to the "American Farmer."

Among the many questions of deep interest to agriculturists, I doubt if there is one more so than the attention now paid to the subject of manures.

In my section of country, equal consideration is given to the durable improvement of the soil, as to the extent of a first crop—In other words, we esteem that the best manure which most benefits land and crop.

No manure, however, can much benefit bad farming—Thy journal has greatly helped to make good farmers, and as a consequence, the valuable developments of Agricultural science.

I have tried all manures I could reach. Lime I conceive the parent of manures, and have therefore in time applied from 150 to 200 bushels to the acre on my land. Second to lime, after an experience of three years, I feel myself authorizeed to say, I consider Kettlewell's Renovator preferable to all others, for my land. My object in writing to thee was to state this impression.

I judge no manure by the results of a first crop—if this was made a standard of judgment, lime, itself, in most cases, would be abandoned.

I have therefore in these Chemical Salts, patiently and carefully watched results upon both land and crop. My first experiment was upon a field which had been divided for oats and potatoes—

I applied to one-half of the potato portion one barrel of the Renovator to the acre, and upon the balance, ten four-horse loads of the best barn-yard manure to the acre. Upon part of the oats portion I applied one barrel of the Renovator per acre—The oat crop was a very good one throughout the field, and the benefit of the Salts might have disappointed a sanguine temperament; but their value was manifested so plentifully in the wheat crop, that it could be seen to the very line where the application stopped.

In this section of country, (and I believe it applies to all others) it is necessary to use manures of some kind on oat land to insure a good crop of wheat, which we gradually set down in clover or timothy, either separate or combined. Barn yard manure has generally been used for that purpose, but since my experiments with the Salts, I use the stable and barn yard manure on clover land, and rely upon the Salts for oats ground, which I am satisfied is of more benefit to the wheat crop, than if used at the time of seeding. The grass crops, I am satisfied, are equally benefitted by its application in this way.

I have no doubt of its being a durable manure, and for my soil, would prefer one ton of it to two tons of the best Peruvian Guano, at the same price. It may not act so on all soils;—I would therefore advise all to do as I did myself, who may be disposed to give it a trial—to make a moderate experiment—and we may find it of sufficient consequence to haul it as I do by a wagon carriage of 40 miles.

If thee thinks my experiment of any consequence to the farming interest, it is at thy service, as my only object is to promote that interest.

GEORGE COX.

A LARGE PEA PATCH.

To the Editor of the American Farmer—

In consonance with your request, I give you an account of my experiment with Peas, last year.—You may recollect that I requested you to try to obtain for me forty bushels of the "genuine Shinney," but you succeeded in getting me only 1½ bushels—the rest I made up of the ordinary Mississippi or Carolina *Cow* Pea, and sowed a field of say 65 to 70 acres, that had been in corn the year before (1850). The ground was ploughed in April and May, and the peas sowed from the 20th May to the 15th June, with 100 lbs. guano to the acre, mixed with a bushel of plaster—some parts of the ground were sowed at the rate of half bushel—three pecks—a bushel—a bushel and a peck, and a bushel and a half—in order to see which quantity of seed was best. The part on which ¾ of a bushel was seeded, was *decidedly best*, whilst that part on which 1½ bushels were seeded, was *worse than all*. The general result, however, was highly satisfactory, and in the opinion of many experienced farmers, superior to a heavy after-math of clover.

The "Shinney" pea is no doubt the best for fertilizing and turning under, and makes more vegetable matter than the other sorts, and matures sooner, but I would not, I must confess, give to the "Shinney" such a superiority over the other sorts, as is contended for it by many who have grown it. I only sowed the seed from the 1½ bushels which I seeded of the "Shinney."

The above was sown on a farm in Calvert. I made another experiment of a few acres on a farm in Harford Co., but there I sowed them too thick, (1½ bushels per acre,) so that they did not grow more than 12 to 18 inches high, scarcely running at all, and never blossomed; nevertheless, when they were turned in for wheat in the fall, I concluded that the growth was worth double the trouble of ploughing the ground and the cost of the seed. I used no guano or plaster in this last experiment, otherwise I feel assured they might have done better, but the great fault I have no doubt was their being sowed too thick.

I should decidedly recommend the sowing of peas *after corn*, (using 250 to 300 lbs. guano to the acre, with the corn, and a bushel of plaster,) then fallow the peas with wheat, turned under when the peas are in full bloom, giving the wheat another dressing of 200 lbs. guano, at the time of sowing it. I am assured that peas will not take well on old sward, recently fallowed.

Believing it the duty, as I do, of every true friend of agricultural improvement, to make his experiments public, so that others may not only profit by his *practical knowledge*, but avoid many errors which are only discovered by *practice*, therefore, you are at liberty to do as you please with what I have VERY HASTILY written. If you burn it, I shall not think the less of you for so doing.

Yours, &c. ED. REYNOLDS.

Baltimore, Feb. 11, 1852.

For the American Farmer.

THE PAST SEASONS AND THE CROPS OF THE EASTERN SHORE.

The Fall of 1849, was favorable for preparing the ground and sowing wheat. The season continued mild till Christmas, when a sharp frost of short duration occurred. From that period, there was no frost to do injury. The spring was damp and cool, and there was no warm sun to bring out the Hessian Fly till May. The wheat was then too much advanced to suffer from it serious injury—a genial rain fell early in May, and from that time till harvest the weather continued cool and dry. There was neither scab or rust—the maturation of the grain perfect, and the crop abundant.

From my experience, I think if wheat be sown in the fall, after the cool weather expels the fly, they cease to generate, and if the season be cool in March and April, the wheat gets such growth, that it will resist injury from the fly; this opinion was strengthened in the last crop; I had fly on my fields, but the injury was confined to the immature stalks, termed by farmers underlying wheat.

That some varieties of wheat will resist Hessian fly more than others, I think is now generally agreed to by farmers. I have sown Mediterranean in part of my crop for ten years past, and have sustained no injury. My neighbor, Mr. Samuel Thomas, sustained much injury from the fly, in a field of blue stem white, while a field of Mediterranean in his immediate neighborhood, escaped.

Governor Grason has introduced a wheat here which he obtained from Harford county, called the Mountain White, which from former years, he thinks will resist the fly. It is a beautiful white wheat, and if it suits our climate, will supply the place of the old Washington white, which has ceased to afford large crops in this region.

The seasons here so favorable to the wheat, was very unpropitious to the corn crop; the spring was so cold and so wet that the pitching of the crop was much retarded. From the 12th to the 25th of April, I deem the best time for planting. Many of our farmers did not complete this work till the middle of May. With the exception of a rain in May, we

had none to do material benefit. I think the drought extended through the Eastern Shore. After domestic consumption is supplied, little will remain for the market; I am satisfied the general crop will not reach one-half—where the lands were well improved, it may extend to three-fourths. The benefit of calcareous manures were fully proved in the crop: where it had been applied, though the blades are withered, the stock remained green and comparatively vigorous till it was cut down in September. Farming operations were so much retarded, that many fields were not fully gathered till the heavy snows fell, and the crows then made a very serious invasion. I am friendly to crows—I think they destroy many pernicious insects, but I much dislike to see them on my fields when a deep snow has fallen, and my corn ungathered.

The dry summer still greatly impeded preparing our fields for sowing wheat, and much of the cultivation remained until the month of November. In many instances the effort was abandoned, and many fields but partially sown. The present growth does not promise much, and even under favorable weather from this time till harvest, there will be a decreased crop. WM. CARMICHAEL.

Queen Anne's Co. Md. Feb. 8th, 1852.

GUANO—CORN—PEAS—WHEAT FALLOW.

Caroline Co., Va., Jan'ry 16, 1852.

To the Editor of the American Farmer.

Intending the present year to cultivate a large portion of old field in corn, and not being entirely satisfied as to the proper application of Guano (that being the only hope for remuneration,) I have thought proper to make a few suggestions, hoping to get the advice of yourself or some one of your numerous subscribers in regard to their utility. The usual manner of cultivating corn in this region (after planting) is with two ploughings, the first just before weeding the first time—the other about 15 days after, or as soon as the corn is sufficiently strong to bear the earth; at the first ploughing the earth is thrown from the corn, the second it is thrown to it. Would it not be well at this second ploughing, to sow the Guano broadcast, or would the time be too short to afford material benefit to the crop?* If so, might not the beneficial effects from the Guano be preserved by sowing on the field, when it receives the last working, about 1 bushel of Peas to the acre, so that when the corn can no longer consume the guano, its benefits may be appropriated by the peas, thereby affording an excellent fallow for wheat. An early reply to the above, or any pertinent suggestions would be thankfully received by an OLD FIELD.

*We think the time would be too short for the corn to derive essential benefit from the guano, if sowing should be delayed until the second working of the corn. There is no plant, that we are aware of, that profits more than does the corn plant, in the incipient stage of its growth, from *good feeding*; and we fear, if the application were delayed so long as proposed, that the corn would receive but slight if any benefit at all from the guano, certainly none, if a drought of any extent were to follow its application.

We should prefer to sow the guano, mixed with plaster, or salt, and plough it in at the time of breaking up the ground. If the soil is clay, or mould, well charged with vegetable matter, it would be perfectly safe, to apply the guano mixed as above, broadcast, after the ground was ploughed, and to harrow the mixture in. If sown thus early the corn would be sufficiently advanced by the time of the last working, to justify the sowing of the peas, for a fallow for the wheat; and by the by, they would tend greatly to help the wheat crop, without, in our opinion, injuring the corn crop.

LIME AND GUANO.

CLIFTON, VA. Jan. 9, 1852.

To the Editor of the American Farmer—

Dear Sir—The rather hurried manner in which I wrote the communication published in the present number of the American Farmer, has, perhaps, led you into some errors, which render it proper that I should make some explanations.

1st. From the passing allusions which I made to the use of lime on my land, you inferred that there was probably lime enough in our lands already. This I believe to be a great error. The tendency of all the land in this part of Virginia to put up broom straw, even where it has been made rich by heavy manuring, indicates the absence of lime.

For your better understanding of the subject, I will give a more particular account of the experiment.

Four years ago last spring, I applied 500 bushels of lime to 20 acres of land. One-half was manured at the rate of 25 ox-cart, or 4 horse-wagon loads to the acre, and planted in Tobacco. The other half was planted in corn, without manure. The first brought a fine crop of Tobacco, and the next year yielded 20 bushels of wheat per acre. The corn land brought a fair crop of corn, and the next year about 10 bushels of wheat to the acre. The adjoining land in both cases, was put in the same crops. There was no perceptible difference between the limed, and unlimed land, in quality of land, or in product, either in these years, or in subsequent years. The whole is now well taken in clover, but no difference apparent in the limed and unlimed land. I must take one exception, however, which confirms my opinion of the absence of lime in the land. Where the lime stood in two large heaps for several days, and for the distance of two or three yards around them, the wheat has been uniformly made more luxuriant, with a brighter colored straw, and ripened earlier.

I infer that a *sufficient* quantity of lime would improve our land, but that the requisite quantity would probably be greater than we could afford to buy. The next year I made arrangements for purchasing 1000 bushels, intending to apply 50 bushels to the acre, but the boatmen would not bring it either in their bags or loose in their boats, on account of the injury produced by lime to the latter.

The more certain efficacy of Guano has prevented my making further experiments with lime.

With regard to the use of Guano, since the first year, I have always sifted it—pounded and rubbed the lumps until they were perfectly pulverized, and moistened carefully, and rubbed it well together to equalize the moisture, and prevent its forming lumps again.

I do not throw my high land into *ridges*, as you suppose. I merely *lay it off* with the plough, as a guide to the sower of the Guano. It is then flushed with a two horse plough before sowing wheat on it—having first been ploughed deep (horizontally on hills) with a three horse plough.

I thank you for your advice about the use of Gu-

ano with corn. In addition to my regular crops, I intend to guano about twenty acres of broom straw land, at the rate of 200 lbs. to the acre, plant it in corn, and sow it in wheat in the fall without any addition of Guano. On a large surface, we cannot afford 400 lbs. to the acre.

I would not have you to suppose that I am engaged in so unprofitable a business, as cultivating land that will not produce *over* 5 *bushels* of wheat to the acre. I have, however, several hundred acres of such land, which I wish to improve by the use of Guano. Having put myself "rectus in curia,"

I remain yours, respectfully, P. H.

THE PHILOSOPHY OF BURNING TOBACCO BEDS.

On the causes of the Efficacy of Burnt Clay. By Dr. Augustus Voelcker, Professor of Chemistry in the Royal Agricultural College, Cirencester.

Jour. Roy. Agr. Soc. of England of Dec. 1851.

The practice of soil-burning has long since been recommended by different persons as one of the best means of improving stiff clay lands, whilst others denied the utility of soil-burning altogether. But although failures sometimes attended this practice, we are now in possession of numerous incontrovertible instances in which the application of burnt clay was followed by the happiest results. One of the most striking examples in which soil-burning proved highly economical, is recorded in volume vi., page 477, of this Journal by Mr. Pusey, who very justly observes that burnt clay acts, not merely mechanically, but also as a manure (that is chemically.) *

In support of the theory I have embraced, with respect to the efficacy of burnt clay, it may be mentioned that I have determined the whole amount of alkalies which the clay from Huntstile farm contained in any form. The greater part of potash and soda in this clay is present in the state of insoluble silicate; and as I find no less than 4.726 per cent. of potash and .88 per cent. of soda, I have no hesitation in suggesting that this clay is most likely to prove very efficacious after burning. With this theoretical speculation agrees well the fact mentioned by Mr. Danger, the tenant of Huntstile farm, that by burning this clay the land is very much improved. Mr. Danger says:—"Of course I can only speak to the fact. A soil, which I have found *quite sterile*, on which this process has been used, became *totally changed*."

The proportion of soluble Potash in the above clay, before burning, .269, after burning *slightly*, .942.

From the preceding remarks it follows that the fertilizing effects of clay mainly depend on the proportion of potash which it contains; and as any good analytical chemist may determine the exact quantity of potash which may be extracted from a clay, we possess the means of deciding at once whether a clay is likely to be efficacious or not. The advantages which result from a previous analytical examination, become most conspicuous when we consider that the trifling expense for analysis will guard the farmers against failures and loss attending the investment of much money and labor in burning soils which cannot be rendered more fertile by this operation. Chemistry, in this manner, I have no doubt, will be found to confer material benefits on those who avail themselves of its aid.

Virginia State Agricultural Society.—We have already announced, that Edmund Ruffin, Esq. had been appointed President of this Society. At the meeting for the transaction of business, the Hon. Willoughby Newton delivered an address, which is published in the Va. papers, and which we would be much pleased to give entire in our pages—this however we cannot promise ourselves to do: we have now on hand several able productions, delivered before the several societies of Maryland, which we had hoped to present to our readers, but have been unable to do so. We will, some of these days, make an effort to give the pith of them, if we can do nothing more.

MANUFACTURED MANURES.

To the Editor of the American Farmer—

I was quite surprised at the remarks made by a member at the meeting of the State Agricultural Society, when the subject of *Manures* was under discussion. He has seen fit to condemn *all* "Manufactured Manures," and to caution his brother farmers against using them. I am not aware of his having used any of *my* Fertilizer; if he had given it a *fair trial* himself, I feel certain he would have formed a different opinion of its utility. I am fully satisfied, from information in my possession, that I have been the means of *raising at least* 100,000 bushels of Grain, (besides hundreds of *tons of Hay and Clover*) that would not have been raised without the use of my Salts. Certainly, a *manure* that is capable of producing such results, deserves more the *fostering* care of the Society, than its condemnation. For the last two years, I have had but few complaints of its want of success, in producing very large increased crops. I know of one case, where 1000 bushels of Wheat were raised on 60 acres of "*worn out land*," and the field beautifully set in Clover. A "land" on which no Salts were used, convinced all who saw the field, that without the dressing, not over two bushels to the acre could have been obtained. I refer to Mr. R. J. Worthington, Baltimore Co.

As some evidence that the Agricultural Salts manufactured by me are still held in repute by some gentlemen who have heretofere used them, I will give the names of a few to whom I have made sales last year, all of whom express themselves well satisfied with the experiments they had previously made, viz:—R. J. Worthington, 60 bbls., who used it on corn, and states that he got three times the quantity that he would otherwise have got had he not used them; Edward Worthington used the Fertilizer on Wheat and Corn, with the same success as his brother; General McDonald, 16 barrels—he had used the same quantity the year before on Wheat, with very satisfactory results; Johns Hopkins, Esq., 60 bbls; he also had used it before, and is well satisfied with its effects; Wm. H. Norris, Esq., 20 bbls.—he had used 20 barrels two years previous, and obtained 16 or 18 bushels wheat to the acre, from land that without the use of the Salts, would not have produced one-fourth that quantity. John Nantz, Esq. of Balt. Co. for several years past, has used from 15 to 30 barrels per year. He thinks it less expensive than to haul manure from his barn.

If you could give me space in your journal, I could furnish you with the names of many others—some of whom consider the salts a much cheaper and more permanent manure than Guano.

I have the evidence of several respectable farmers, that the application of two barrels to the

acre, produces as large crops of small grain, as 15 to 20 double horse-cart loads of the best stable manure.

It would be imposeible to apply the materials contained in my Fertilizer to any soil suitable for cultivation, without improving its quality, as the constituents of which it is composed are necessary to be present in all fertile soi's, and the quantity contained in two barrels applied to an acre contains sufficient of these materials for six or eight crops of grain, provided the rotation is properly conducted.

The member alluded to, calls all manufactured manures "*nostrums*." The Salts prepared by me cannot be so considered, as I have from the first published in my pamphlets the constituents entering into its composition.

The great success attending the use of my Guano in producing a large crop the first year, has so completely captivated farmers in its favour, as to cause them to neglect other manures. The fertilizer now prepared, contains so large a proportion of Bones, dissolved in Acid, and Alkaline Salts, that I have no doubt that even the first year will produce as large, if not a larger yield of grain, as an equal outlay in Guano.

Experience has shown that the Fertilizer is much more effacious if applied to the soil immediately after ploughing in the spring, or to early sown wheat in the fall. The time will come when all prejudice concerning this article will be removed, and its character fully established as a cheap, permanent, and valuable manure.

P. S. CHAPPELL, Chemist,
April 1, 1852.—1t BALTIMORE.

Maryland Agricultural Warehouse and SEED STORE—Wholesale and Retail.

F. B. DIDIER & BRO.

No. 97 N. PACA ST., NEAR FRANKLIN, BALTIMORE.

WE have now in store and ready for sale, one of the largest and best assorted stock of AGRICULTURAL MACHINERY, FRUIT and ORNAMENTAL TREES, SEEDS, FERTILIZERS, &c. ever offered in this market, the same gotten up expressly for the spring trade—to which we would most respectfully invite the attention of our friends and the public generally.

N. B. Dr. X. Bulleno's invaluable extract, guaranteed to cure the many afflictions to which man and beast are heir to, or no charge made.

mh. 1 F. B. DIDIER & BRO.

Bone Dust.

THE subscriber will furnish ground Bones, warranted free from every mixture, *or the entire quantity forfeited*, at 50 cents per bushel, delivered at his factory. Also a second quality article, composed in part of Bones, and in part of Flesh of Animals, being a quick and powerful fertilizer, at 35 cents per bushel.—Col. W. W. W. Bowie, the well known "Patuxent Planter," who receiveshis supply of bones from my Factory, says that the "bone dust at 50 cents per bushel, was the best I ever saw." He has lately made such an improvement in his machinery for crushing bones, as to enable him to sell an article better than ever before offered, a sample of which can be seen at the office of the American Farmer.

None of my manufactured Bone Dust is sold, except at my Factory. JOSHUA HORNER.

I furnish to my customers, when bags are not sent, 2 bushel bags, at 6 1-4 cents each.

Reference.—Messrs. Randolph, Gollbart & Co., 158 Thames street. Mar. 1-3t*

Horner's Prepared Animal Manure.

THE subscriber asks the attention of the farming community to the following analysis by Dr. Jas. Higgins, State Chemist, and comparison between his prepared Animal Manure, and Patagonian and Peruvian Guano. It is necessary for a full understanding of the comparison, to state, that his Compound costs but 35 cts. per bushel, or $12 per ton.—This preparation has been used with much success on the tobacco crop, and testimonials from Mr. Reynolds, Mr. R. H. Hare, Col. Bowie, and other well known planters and farmers, who have purchased it for Corn, Wheat, Tobacco, and spring crops generally, can be produced as to its efficiency, by practical tests.

For further particulars, see advertisement in another part of this paper. dec. 1-6t* JOSHUA HORNER.

LEONARDTOWN, Oct. 7th, 1851.

To Mr. J. HORNER, Baltimore—*Dear Sir:*—Below I send you a statement of your Manure as to its essential valuable constituents, and the relation which it bears to Patagonian Guano. A ton of your manure contains of

Ammonia,	54 34-100 pounds
Phosphate of Lime,	528 do

The average of Patagonian Guano by the ton, as it is sold, contains of

Ammonia,	60 pounds
Phosphate of Lime,	800 do

Estimating Patagonian Guano and your Manure by the same rule as to the value of the several constituents, the Patagonian Guano would be worth $19.20 per ton, and your Manure $14.44. If Patagonian, therefore, be worth $38 per ton, your Manure is worth about $28.50 per ton.

THE VALUE OF PATAGONIAN GUANO AND YOUR MANURE, I DETERMINE BY THE AGGREGATE VALUE OF THEIR SEVERAL VALUABLE CONSTITUENTS, and *by the same rule* which would make Peruvian Guano worth $46 per ton. Your Manure also contains 122 pounds of Gypsum, 114 pounds of Salts of Potash and Soda, and 300 pounds of Lime to the ton, being about equal to Patagonian Guano, of average quality, in these constituents. Very truly yours, &c.,

JAMES HIGGINS, St. Ag. Chemist.

P. S.—You can make what use you please of this.

AGRICULTURAL.

THE subscriber has located at No. 40 Second Street, Baltimore, second door east of the Town Clock, where he offers for sale the best Guano, Potash, Soda, and other Agricultural Salts that may arrive in this port, in quantities to suit the purchaser, at the lowest market prices.

From a practical knowledge obtained during the last 26 years, he feels himself qualified to give practical information (which cannot be obtained from the theoretical chemist or merchant,) as to the application of the Salts to the different soils, which depends on many circumstances and causes.—There are as many diseases in the soil, as are found in the human system.

The subscriber will visit any part of this or the adjoining states, for the purpose of examining and giving his opinion and directions for the improvement of the different soils. No opinion of the treatment of soils can be given, upon a simple analysis of the soil;—it requires a personal examination of the soil and its climate, and without which the simple analysis is not worth the paper on which it is written. WM. BAER,

mh. 1 Agricultural Chemist.

4000 TONS PERUVIAN GOVERNMENT GUANO on hand, and to arrive.—500 tons PATAGONIAN—for sale by S. FENBY & BRO.

Corner of Gay and Pratt streets, Baltimore.

S. Fenby & Bro. are now prepared to make contracts for further delivery for Fall seeding, and having arranged for their supply of Guano arriving early in the season, purchasers can rely on not being disappointed. A large amount of Guano intended for the Fall crop will not arrive in the United States until late in the autumn. jy-1.

AGRICULTURAL IMPLEMENTS.—LABOR SAVING MACHINERY.—*GEORGE PAGE, & CO.* Machinists and Manufacturers, Baltimore st. West of Schroeder st. Baltimore, are now prepared to supply Agriculturists and all others in want of Agricultural and Labor-saving MACHINERY, with any thing in their line. They can furnish Portable Saw Mills to go by steam, horse or water power; Lumber Wheels; Horse Powers of various sizes, ranging in price from $85 to $190, and each simple, strong and powerful. Their *Horse Power and Thrashing Machine*, they are prepared to supply at the low price of $125 complete; the Thrashing Machines without the horse power, according to size, at $30, 40, 65 and $75; Improved Seed and Corn Planter; Portable Tobacco Press; Portable Grist Mills complete, $165.

LEWIS G. MORRIS' THIRD ANNUAL SALE,

By Auction, of

IMPROVED BREEDS of DOMESTIC ANIMALS

WILL take place at MOUNT FORDHAM, Westchester Co. (11 miles from the City Hall of New York,) on WEDNESDAY, June 9, 1852. James M. Miller, Auctioneer.

Application need not be made at private sale, as I decline in all cases, so as to make it an object for persons at a distance to attend. Sale positive to the highest bidder, without reserve.

Numbering about fifty head of Horned Stock, including a variety of Ages and Sex, consisting of PURE BRED SHORT HORNS, DEVONS, and AYRSHIRES; SOUTHDOWN BUCK LAMBS, and a very few EWES; SUFFOLK and ESSEX SWINE. Catalogues, with full Pedigrees, &c., &c., will be ready for delivery on the first of May—to be obtained from the subscriber, or at the offices of any of the principal Agricultural Journals or Stores in the Union. This sale will offer the best opportunity to obtain very fine Animals I ever have given, as I shall reduce my herd lower than ever before, contemplating a trip to Europe, to be absent a year, and shall not have another sale until 1854.

It will be seen by reference to the proceedings of our State Agricultural Society, that I was the most successful exhibitor of Domestic Animals at the late State Fair.

I will also offer a new feature to American Breeders—one which works well in Europe; that is, *letting* the *services* of *male animals*; and will solicit propositions from such as see fit to try it. CONDITIONS—The animal hired, to be at the risk of the owner, unless by some positive neglect or carelessness of the hirer; the expense of transportation to and from, to be borne jointly; the term of letting, to be one year or less, as parties agree; price to be adjusted by parties—to be paid in advance, when the Bull is taken away; circumstances would vary the price; animal to be kept in accordance with instructions of owner, before taking him away.

I offer the following conditions, three celebrated Prize Bulls, "MAJOR," a Devon, nine years old; "LAMARTINE," Short Horn, four years old; "LORD ERYHOLME," Short Horn, three years old. Pedigrees will be given in Catalogues.

At the time of my sale, (and I would not part with them before) I shall have secured two or three yearly setts of their progeny; and I shall send out in August next a new importation of male animals—I shall not want the services of either of these next year. I would not sell them, as I wish to keep control of their propagating qualities hereafter.

I also have one imported Buck, the prize winner at Rochester last fall, imported direct from the celebrated JONAS WEBB; and also five yearling Bucks, winners also, bred by me, from Bucks and Ewes imported direct from the above celebrated breeder; they will be let on the same conditions as the Bulls, excepting that I will keep them until the party hiring wishes them, and they must be returned to me again on or about Christmas Day. By this plan, the party hiring gets rid of the risk and trouble of keeping a Buck the year round. All communications by mail must be prepaid, and I will prepay the answers. L. G. MORRIS.

MOUNT FORDHAM, March, 1852. ap 1-3t.

Virginia Lands for Sale.

I HAVE a farm of 230 acres—67 in Wood, balance open, highly improved by lime—Houses and enclosures in good order—lying on the Mattaponi River, near King and Queen, C. H.

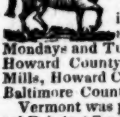
A large body of heavily timbered land—covered with Pine, Oak, and Chestnut—750 acres. The Oak is suitable for ship building. This land is on the Potomac River, about 6 miles above Smith's Point-Light, Northumberland Co.

Also an improved farm of 340 acres, in Middlesex Co., on the Rappahannock River. Lands in various other tide water counties. Apply by letter, post paid, or in person, to

G. B. TALIAFERRO,

Ap 1-1t* No. 10, Bowly's Wh'f., Balto.

VERMONT.



THIS fast trotting Morgan and Black Hawk STALLION will stand the ensuing season, commencing on the 1st of April, and ending on the 1st day of July, as follows: Mondays and Tuesdays at Samuel Owings', near Triadelphia, Howard County; Wednesdays and Thursdays at Ellicott's Mills, Howard County; Fridays and Saturdays at Pikesville, Baltimore County.

Vermont was purchased at the New York State Agricultural Fair last September, for the sum of $1000. See small bills.

TERMS: $15 the season, payable invariably in advance.

GEORGE BURGESS.

Ellicott's Mills, March 11, 1852. Ap 1-3mo.

Bates' Superior Upland Bell Cranberry.

THE subscriber can supply Plants at $7 per thousand; for less than a thousand, at the rate of $8 will be charged. The Plants will be carefully packed in meadow moss, and well boxed, which will enable them to go a great distance in a fresh state.

The proper time for Fall transplanting is October and November; for Spring, from the opening of the same until the 25th of May. Persons wishing for Plants, are requested to send their orders as early as the first of September, for the transplanting, and during the winter for Spring.

The Cultivated Fruit will be sent to persons ordering it, for two dollars per box—boxes 14 inches square, and 7 inches deep. This price is no more than the wholesale price in the New York market for this fruit; yet I am desirous to distribute the fruit through the country. No one person will be allowed more than two boxes, unless by special contract, by mail. Should more orders come than fruit can be furnished to fill the latest orders, they will be returned.

☞ Persons ordering PLANTS or FRUIT will please inform how to direct from New York city, or from the city of Boston, as I shall deliver to the above places without charge. Orders for Fruit must be accompanied with CASH.

Persons having a garden of moderate size, and wishing to raise their own Cranberries of a superior quality, can do so by obtaining a few plants, and with a small amount of labor, at the commencement, will find their cultivation both easy and profitable.

Bell Plants in Pots.—The plants can be also furnished growing in pots and boxes, forming a beautiful ornament, as the fruit when protected will remain upon the vines until the vines again blossom, the blossoms starting each year from the new growth. *To this the attention of the Ladies is particularly invited.* The plants can be sent in pots at any season of the year, to any part of the U. S. They will flourish on the passage, and can be transplanted to the open ground in the proper season, at leisure. The exceeding beautiful appearance of this slender vine, standing erect, and clothed in the most luxuriant green, bearing its delicate blossoms, and laden with rich clusters of crimson-colored fruit, renders it as an ornament for the window, garden or greenhouse, entirely unrivalled. Price, $3 to $5 per Pot. The Plants can be obtained in Pots, Boxes, or in the Roots.

Address SULLIVAN BATES.

Ap. 1-1t. Norfolk Co. Mass.

☞ A few plants of this Cranberry will be for sale at the office of the *American Farmer*.

Grass and Garden Seeds.

5000 BUSHELS HERDS GRASS or Red Top
500 do Clover Seed
500 do Timothy Seed
500 do Orchard Grass
500 lbs. Lucerne
1000 do White Clover
500 do Allsach or Hybrid Clover, which

possesses all the properties of the white, with four times the burden per acre. It is the opinion of many farmers that this will supersede the other Clover in a very few years.

All of which is for sale at the lowest market rate for cash by

ap. 1-1t C. B ROGERS, No. 29 Market st., Phila.

Mexican Guano.

GUANO—700 tons Mexican Guano, in store and for sale by STIRLING & AHRENS, 54 Buchanan's wharf, at $25 per ton of 2240 lbs.

We have the following certificate from Dr. David Stewart, who analysed this Guano: "It contains the largest proportion of Phosphates I have ever met with—where they are deficient in a soil, this Guano is cheaper and much more permanent than the Peruvian. Signed,

ap 1-1t DAVID STEWART."

PIGS FOR SALE—3 pairs Pigs, half Chester and half China, (an excellent cross)—will be delivered in April—Price $10 per pair, delivered in the city—$1 for cage and feed it sent away.

Also, a very superior full bred Chester BOAR, 18 mos. old, out of animals which have taken first prizes at the Md. State Agr. Soc. Cattle Show. Price $50. Apply to C. WARNS, Elkridge Landing, Howard Co. Md. or to S. Sands, office American Farmer. ap. 1-1t*

Durham Bull for Sale.

THE subscriber offers for sale his Durham Bull "Laurel," who is by Col. Capron's celebrated "Gleddow," and out of one of the Colonel's best cows. "Laurel" will be 6 years old, in August next, and will be sold on *very reasonable terms*, as his services are no longer required. O. HORSEY,

ap. 1 1t* Fredr'k. Co., Md.

AMERICAN FARMER.

BALTIMORE, APRIL 1, 1852.

"*Agricola*," on the subject of an "Agricultural Department," was received too late for this No.—We will publish it in our next—but we would, in advance, give notice, that we cannot give place to any extended discussion of this question in our pages.

A correspondent at Raleigh, N. C. will accept our thanks for the letter of Prof. *Emmons*—we expect to publish it in our next.

A communication from R. S. Blackburn, Esq., Cor. Sec. of the Valley Agr. Soc. of Va. on the "Management of Negroes," has also been received, and will appear next month.

SEEDS.—We have received a very few small packages of Peas, of different kinds, Cuba Tobacco, and Ray Grass seed, from the Patent Office—also from our friend N. T. Green, of Danville, Va. a package of a corn field pea, which is called the "Grey Corouder," and particularly recommended for its richness of flavor—also from the same, Watermelon seed, called the "Hanover," a most delicious, large, red meat melon—Asparagus seed, from A. B. Hooe, Esq., of a very superior variety, noticed heretofore in the Farmer.—We will with pleasure divide these seeds among our friends, on application.—The Okra seed and Peas, from Louisiana, have not yet reached us.

☞ *This number of the "Farmer,"* probably contains as great a body of valuable practical, seasonable matter, as was ever before issued from *our* press, at least.—If any subscriber after perusing its contents, thinks he has not in it the worth of a whole year's subscription, we should like to hear from him. The press of advertisements, all of which are more or less interesting to our readers, forces us at a heavy expense and great inconvenience, to issue a supplemental sheet of 16 pages, in order that our reading department may not be too much encroached upon.

GUANO INSPECTION.—On another page of this No. we have noticed this subject, and given our own, and the views of the Virginia State Agricultural Society, and of the Agricultural Societies of Maryland, embracing in their midst many of the most eminent farmers of these states—After the main body of our paper was put to press, we received the following communication from the General Agent in the U. S. for the Peruvian Government, and the importance of the subject induces us, at some inconvenience, to give it at once, in order that the attention of the farmers may be aroused to the dangers to which they are exposed. The use of guano has now become almost indispensable—it has been a God-send to the owners of the exhausted lands of the old Middle States, and the immense increase in its use every year, shows the value placed upon it by those who know its effects—The inspection law, we verily believe, has been useless—and if additional drawbacks be placed on its free introduction, the farmers will find that they must dispense with its use, or be subject to additional charges and vexatious delays and impositions, by the traders of other states, from whence they would be obliged to draw their supplies. Mr. Riley acts upon instructions from his principals in Peru, and the consequence of adopting the suggestions which have been made to the Legislature, will inevitably drive this trade from our city and state, without the posibility of those for whose benefit it is intended, deriving any advantages from the additional clogs which are proposed. The Agricultural Society of Va., at the head of which are such men as Edmund Ruffin, Willoughby Newton, Bernard Peyton, Wm. H. Richardson, and others well known to the farmers of the country, recommend the abolishment of the inspection altogether in their state—and if the farmers of Maryland do not wish to get the article second-handed from merchants of Virginia, Delaware and New York, of whom they know nothing, they must not fold their arms and permit their interests to be sacrificed—Let them instruct their Delegates and Senators at Annapolis upon the subject, and we have no doubt they will be heard and heeded.

In conclusion we will say, that we have thought much upon the subject of inspections, and that we have come to the conclusion, that no system which could be adopted, would afford the least protection to the farming interests, and that its sole operation would be, to impose an onerous tax upon them, without any corresponding benefit. The *repeal* of the existing laws upon the subject, would be the best service the legislature could confer upon the Agricultural community. The existence of laws upon our Statute books, "which hold the faith to the ear and break it to the hope," is worse than a mockery.

NEW YORK, March 21, 1852.

To the Editor of the American Farmer.—

Dear Sir:—In Dr. Higgins' second report to the House of Delegates of Maryland, I have noticed certain statements regarding *Peruvian Guano*. which I fear are calculated to have an injurious effect on the Guano business in Maryland, without giving greater security to the farmer, and I avail myself of your columns to make known my views on the subject.

Dr. Higgins states that the guano from the Chincha Islands, (the only place from whence the Peruvian is exported,) varies greatly in quality, and consequently recommends a law requiring its sale by analysis.

He further states, that in England the importer sells it under a guarantee to contain 16 per ct of Ammonia, and as in Maryland such a guarantee is not given, the worse class will be sent to Maryland.

With regard to any material difference of quality in Guano from the Chincha Islands, (to which my remarks are limited,) I feel satisfed that it does not exist in the general out-turn of one cargo with another. An analysis is made upon too small a quantity to be a guide for a cargo. In selecting a handful here and there for the analysis, some difference might be found, the same as in a cargo of copper ore from one mine; but I am persuaded that the valuable ingredients will be found to exist in nearly equal quantities in every hundred tons of this Guano. Situated as the deposites are, on elevated rocky islands, they are free from any mixture of sand, or contact with water—consequently, no depreciation can arise from these causes in any part of the deposits. It is also well known that rain never falls on the Islands, thus rendering the surface of the deposits quite as perfect as at considerable depths.

The Peruvian Government have satisfied itself

through numerous examinations of competent persons, of the truth of the above remarks, and therefore acts upon the fact, that one cargo is equally valuable as another, and gives one and the same limit for all, whether sent to England, United States, or other markets.

I know to a certainty, from personal observation, that better Guano is not sent to England than comes to the United States, (even supposing a difference existed,) for as the vessels arrive at the Islands from Callao, (where the charters are made by the various companies who have the right of exporting Guano to sell abroad, for account of the Government), they are obliged to take turns in loading, according to the dates of arrival, and all loaded from the *same* banks or deposits of Guano, and sail for their various destinations so soon as full.

If a law should be passed requiring Peruvian Guano to be sold by analysis, which can only be partially made, it will have the effect of greatly curtailing the trade of this valuable article in Maryland, and subject the farmers to the additional expense of obtaining it from New York, where all would in such a case be deposited, and all this without obtaining further security as to quality, than they now possess, for they would thus receive the very *same* Guano which otherwise would have been landed in Baltimore directly from the Islands.

My motive for placing this view of the subject before your farmers, is, that, as Agent in the United States for the sale of Peruvian Guano, I would not send cargoes of it to Baltimore under the uncertainty of what might be the result of a partial analysis, for should it prove such as to make its value *appear* less than the limit given by the Peruvian Government, I would be obliged to take it from Baltimore at a great expense, and rather than subject myself to such a risk, I would order all vessels to discharge in New York, or in the ports of Virginia, by which means, the supplies required by Maryland would reach her at an increased expense, and Baltimore would lose a valuable trade which she now has, to Virginia, Delaware, &c.

I feel confident these remarks will have due consideration from Dr. Higgins, whose interesting report I have read with much attention, and whose interest in seeing justice done to the farmer is highly commendable, but upon reflection, I think he will agree with me, that in Peruvian Guano there is no reason why a law is required to protect the farmer when he receives the genuine article. I am glad to see the Doctor's statement, that no case of adulteration in this country has come to his knowledge, and although I confidently believe all dealers too honorable to adopt such a deception, even were it otherwise, I think the public have little to fear on this ground, as the supplies of inferior Guanos have now become nearly exhausted, and in a short time we shall cease to see them imported.

Respectfully, your ob't. servant,

THEODORE W. RILEY.

Ditching Machine.—Charles Bishop, of Norwalk, Ohio, has invented an improved ditching machine. It is worked by horse-power, is provided with a revolving excavator, the shaft or axle of which lies in the direction of the length of the ditch. The ditch is cut of a semi-circular form, the excavated clay, or earth, is deposited in a box, from which it is delivered on one side, by scrapers attached to an endless chain.

SAW DUST.—Our correspondent at *Lewistown*, Pa. is informed, that by mixing his saw-dust with *animal manure*, in the proportion of *two* loads of the former, to *one* of the latter, and adding 50 bushels of ashes, and 5 bushels of salt, to every 20 double horse cart loads of the mass, throwing the whole into bulk, and permitting it to so remain a few weeks before using it, he may so far reduce his saw-dust, as to convert it into manure, without apprehending any danger from the vegetable acid it contains. He should spread the saw-dust first,—then the ashes, then the animal manure, then the salt, layer and layer about, and cover the whole with woods'-mould. When he breaks down the mass, he should thoroughly mix the whole together. If he can procure *Cracklins*, or *Chandlers' Graves*—and he may do so of any of the soap and candle manufacturers in Baltimore and Philadelphia—and will give to every 20 loads of the compost, (the proportion of compost for an acre) 200 lbs of the cracklins, and take the trouble to shave them down, and incorporate them as one of the layers of the compost, he will have a body of manure which will be as efficient the first year, as would 400 lbs. of guano, and be four times as lasting in its effects.

MARYLAND HORTICULTURAL SOCIETY.—The Society has issued its list of Premiums for the year. The following is the list for the month of *April*:—

Pelargoniums—Best 6 varieties in pots, $2; 2d best, 1
Calceolarias—Best 6 varieties in pots, $2, 2d best, 1
Cinnerarias—Best 6 varieties in pots, $2; 2d best, 1
Roses—Best 6 varieties in pots, $2; 2d best, 1
Hyacinths—Best 6 pots, $2; 2d best, 1
Pansies—Best 6 pots, $2; 2d best, 1
Bouquet—Best for hand, $2; 2d best, 1
Green-house Plants—Best 12 pots in flower, $3; 2d best, 1
Rhubarb—Best 12 stalks, $2; 2d best, 1
Sea Kale—Best dish, $2; 2d best, 1
Cucumbers—Best pair, $1
Cauliflowers—Best 2 heads, $2; 2d best, 1
Asparagus—Best 25 stalks, $2; 2d best, 1.

The time and place for holding the Exhibition will be announced in the daily papers. Competitors must be members of the Society, but any articles for exhibition only, will be gratefully received and properly noticed, if deserving. All competitors must hand in a list of their plants, fruits and vegetables, to Jno. Feast, Ch'n. Com. of Arrangements. All articles exhibited for competition must be the growth of the exhibitor, except flowers used in the designs.

Caroline County, Va.—A subscriber in this county in remitting his subscription to the Farmer, adds:

"Your paper has been instrumental, I may say without flattery, in developing a spirit of improvement in this part of the State, which I doubt not will be in a few years apparent in the improved appearance of the country."

We flatter ourself that we have been instrumental in awakening a spirit of improvement in the Old Dominion, which will tell with powerful effect on her future destiny.

Broom Corn, and the seed as food for stock.—Mr. *Wm. F. Porter*, in a Report to the Essex County, (Mass.) Society in speaking of broom corn states that he raised on 5½ acres 3300 lbs. of Brush, and 330 bushels of seed. The seed he says is worth as much for cattle and swine as oats. Mr. P. keeps a large dairy, and, of course, speaks from practical knowledge of its virtues as food.

IMPROVEMENT OF POOR SANDY LAND.

REPLIES

To a correspondent at Little Rock, Knox Co., Tenn.

We can only judge of the necessities and wants of your soil, from the data you have furnished us. Guided by that, we shall honestly endeavor to tell you how, according to our poor judgment, you should avail yourself of the resources at hand, to improve the condition of your land.

You represent it as a deep friable sandy soil, and not retentive of moisture, abounding in a superabundance of the oxide of iron, and that it has been skinned and skimmed, in the mode of culture, heretofore pursued, for a long series of years.

In speaking of your resources for manuring, you say that lime is abundant, and plaster can be obtained at a fair price. In view of the sandy nature of your land, and its want of retentive powers, we think the first thing you should attempt, would be the improvement of its texture, so as to improve its capacity for retaining moisture as well as manure. If the subsoil be *clay*, and within the reach of the plough, which is sometimes, nay, often, the case, you may alter the texture of your soil, by turning up 2 inches of the *clay* subsoil, and cross ploughing and harrowing until you intimately mix the clay with the surface sand, and thus add to its tenacity. This done, you should give it a good dressing of enriching manure, plough that in about 6 inches deep, and give to the land a top-dressing of lime, say at the rate of 50 bushels to the acre.

If the subsoil is not *clay*, then your next best plan would be to make a compost of, say at the rate, per acre, of 50 bushels of lime, to 600 or 800 bushels of clay; form the compost in alternate layers of clay and lime, let it lay in bulk some weeks, then mix it well together, by carefully breaking it down, and shovelling it over, and let it lie in bulk until you are ready to use the compost.

You ask us:—

"Would not a compost formed of stable manure, leached ashes, and plaster, make a good manure for a corn crop from my land?"—and you further remark:—

"From my small amount of stock I have been husbanding my manure, occasionally throwing into my heaps, the scrapings from my lots, with the addition of some leaves and straw"—and you further ask,—

"How would it do to mix my leached ashes with my manure now, and let it remain in heaps until the middle of March, with the addition of a small quantity of plaster as I make my heaps; would it not make a good compost for manuring in the hill?"

We answer first,—"Stable manure, scrapings of your lots, leaves and straw, leached ashes and plaster"—if you have enough of these substances,—will make a good manure for a corn, or any other crop—its value would be increased on your soil, by the addition of a few bushels of salt. In forming your compost, after every layer of the stable manure, leaves, straw, and scrapings of your lots, strew thereon your ashes, salt, and plaster, say on every 20 double horse loads of the rough materials, strew 10 or 20 bushels of ashes, 1 bushel of plaster, and 2 bushels of salt. After these have laid in bulk two weeks, break down your bulk, shovel the substances over, so as to thoroughly mix them together, and leave them in bulk until you want to use them in the middle of March. To this compost, if you would apply the urine and soap-suds made daily about your house, by making a hole in different parts of the heap, pouring these liquids in and covering up the hole, its virtues would be greatly increased.

As you say you only intend to manure your corn in the hill, and do not contemplate broadcasting the field, we have made our recommendation to conform to your circumstances, to the requirements of your corn crop, and to the materials you have at hand. But we are forced, by our sense of candor, to say, that we look upon all *topical* manuring, except when used as an auxiliary aid, as faulty. No manuring less than covering the entire surface of the soil, is to be recommended. Manuring in the hill, answers very well to force the corn plant in its infancy; but, if the surrounding soil be not fertile—or have not the elements of vegetable food in it—hill manuring, will not secure a good crop of corn, because, in a few weeks the roots of the corn will have pushed forward their growth, so as to be beyond the possibility of their deriving any benefit from the manure in the hill—the mouths through which the corn plant takes in its food, are at the extreme points of the roots, and, therefore, the plant has, of necessity, to rely upon the soil around it for its food, and it follows, as a natural consequence, if there be no food therein, it can receive none.

But we will now speak of the *compost of lime and clay* that we have recommended you to make. After ploughing up your land about 8 inches deep, harrow your ground, then haul on your compost, spread it evenly over your land, then harrow, cross harrow, and roll, and then lay off your ground, plant your corn, giving to each hill a shovelfull of your compost—cultivate your corn with the cultivator and hoe, and if the season be a good one, you may make a tolerable fair crop of corn. But against next year, you should strain a point, and collect together such a body of rough materials, as would, together with your stable and barn-yard manures, enable you to give to each acre of your land twenty double horse-cart loads. It takes time to collect the proper materials, such as marsh mud, river mud, the scrapings of head-lands, ditches, yards, weeds, the washings of the road, leaves, pine shatters, and woods-mould,—we say it takes time to collect these substances, but the *time* of a farmer was never more profitably employed. As in your case, as you tell us, you "have no advantages of procuring foreign manure," it is the only profitable way to improve your soil—in which you can bring it to a condition to ensure you pleasure and profit in its cultivation. If you cannot broadcast the whole of a field, do a part, and the product of that part, will satisfy you as to the propriety of our recommendation, as well, as by its increased yield, enable you to improve the other part.

If you could add *bone-earth*, or guano, to your compost heaps, their fertilizing properties would be very sensibly increased, but whatever else you may put in them, do not omit plaster, and salt, and the urine and soap-suds of your establishment.

The "well rotted chip earth, and scrapings of a coal yard," of which you speak, we would remark, that, if the latter be fine, would form excellent manure to be composted with stable manure, ashes, plaster and salt, and, indeed, with any of the materials we have named above. As you say you have a "good deal" of these materials, exert

yurself, and increase the mass, so as to give to your corn-field a good *broadcast dressing*,—if you do so, your increase of crop will more than repay you for your trouble and expenditure. Thorough manuring, and deep ploughing, is the only plan to improve the soil. After you have limed, clayed, and manured your land, get one-fourth or one-fifth of it in clover and grass, and thus prepare a supply of mould for your soil—that will add to its powers of retention, and absorption, and increase its productive capacity.

[The above has been in type, and intended for a previous No.]

REVIEW OF THE TOBACCO & GRAIN MARKETS.

Reported for the American Farmer by J. W. & E. Reynolds.

There has been some sales of Maryland Tobacco within the last month, but at rates we believe much below the anticipation of planters. These sales consisted chiefly of remnants which have been long on hand, and the owners were anxious to CLOSE OUT. We see no season why prices should fall, consistently with the *fact*, that we have had short crops for six years past, and stocks not unusually large. We cannot therefore look for a change, except for the better, and we deem all the circumstances demand higher rates for the future.

We quote common dark crop and second, at $2½ to 3—good crop, $3½ to 4—good and fine red, $4½ to 7, as per quality—Ground leaf is lower, and ranges from $3 to 7, according to quality.

Grain.—Wheat, good red, 88 to 92—White, 95 to $1.03, including family flour at the last named price.

Corn, 56 to 58—for white and yellow, about the same.

Rye, 73 to 75—*Oats*, 33 to 37.

Guano.—Prices remain without change—supply ample.

Cloverseed, dull, at $4.75 a $5, for fair to prime —Timothy seed, $2.75 a $3—Flaxseed, $1.17 per bushel—Wool, receipts light, and market rather heavy; we quote common unwashed, 18 a 20 cts. and washed, 29 a 31c. per lb.—Whiskey, hhds., 21½, and in bbls. 22c. per gallon.

Flour, Howard st. and City Mills, $4.06 a $4.12. —Rye Flour, 3.62—Corn Meal, $3 a $3.12 per bbl. —Coffee, Rio, 9½c. per lb.—Molasses, N. O. 27 a 29c., and common at 20c.

Cattle, beef, prices ranged from $2.50 to $4 on the hoof, equal to $5 a 7.75 net, and averaging $3.25 gross.

Hogs.—We qnote at $6.25 a 6.50.

Potash, $3 to 6 per 100 lbs.—Soda, 3 per do.—Salt Petre, $5.50, do.—Nitrate Soda, $4.50 do. —Bone Dust, 50 a 55 cts.—Oil Vitriol, $2.75 to $3 per 100 lbs.

☞ TO THE EDITOR OF THE AMERICAN FARMER.

Having perceived in the Annual Report of the State Agricultural Chemist, that he has undertaken to affix a monied value to the different varieties of Guano, and believing as we do that his theory is not only erroneous, but that the effect of its being carried into practice would be prejudicial to the interests of those engaged in this important branch of Commerce, we submit to the Agricultural community through your columns the following report of Dr. David Stewart, U. S. Analyst which has met with the unqualified approval of Dr J. C. Polk, State Inspector of Guano.

Very respectfully,
J. J. & F. TURNER,
P. MALCOM & CO.,
C. MORTON STEWART.

Messrs. J. J. & F. Turner,
P. Malcom & Co., and C. Morton Stewart.

Gentlemen:—Having been requested to express my opinion with regard to the inspection of Guano, I have given the subject a careful review.

There are three modes of estimating the value of Guano; 1st, with reference to the variety of soil to which it is proposed to apply it. 2d, its relative value to other manures composed of the same elements 3d its relative value to other cargoes of the same, or other varieties of Guano.—The inspection of Guano is not made to control the price of the article, but merely to establish the relative value of different cargoes and the different varieties. This 3d division of the subject comprehends *the whole* of what is termed "the Inspection of Guano;" consequently there is no inducement to compare Guano with Bones or any other article of commerce *in the matter of Inspection.* This being admitted I advise that the value of "Phosphates" in all varieties of Guano be fixed at four (4c.) cents per pound, and Ammonia at 10 cents per pound, and that the *relative* value of all the different varieties of Guano be calculated by the proportions of these elements they contain.

As every one admits that there are two great classes or species of Guano recognised in commerce, viz:—No. 1, the one characterized by Ammonia, and No. 2. the other composed of many varieties; but all characterized by Phosphates, but both classes equally valuable in the above proportion. That usually named No. 2 being so distinct from No. 1 that *at the same price* it may be worth twice as much to some farmers It is therefore manifest that the old terms "No. 1 and No. 2" should be retained in the inspection, that in those cases where the relative value of these two classes approximate by the above mode of valuation they may be designated as No. 1 minus 10 per cent. or No. 2 plus 10 per cent, instead of affixing the minus to all varieties of No. 2.

By the above rules if the nominal value of No 1 be based on the presence of 25 per cent of Phosphates (25 per ct.) and 14 per cent of Ammonia, and the nominal value of No. 2 be based on the presence of 40 per cent of Phosphates and 3 per cent of Ammonia, the price of each per ton will correspond with the average expense of importing and selling these varieties. But if the price of Ammonia is fixed at a higher point it will break up the competition that now exists between the several varieties of Guano, and raise the price of these two varieties, composing the extremes of No. 1 and No 2, by banishing all intermediate qualities As therefore no one pretends to contend that the Inspector should give the price of Guano, or give its relative value to other manures, but merely the relative value of different qualities of Guano, it is manifest that the wishes of the proprietors should be complied with in the selection of the *arbitrary* rule, or mark of Inspection, and any further information may be obtained by reference to the Analyst, which should be posted in the office of the Inspector.

I am gentlemen, very respectfully,
Your obedient ser't,
[Signed] DAVID STEWART, U. S. Analyst.

I entirely concur in the opinions expressed above by Dr. David Stewart, U. S. Analyst.
[Signed] J. C. POLK,
Ap. 1-1t State Inspector of Guano.

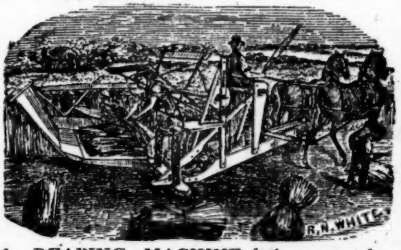
McCormick's World's Fair PREMIUM REAPER,

FOR SALE BY

E. WHITMAN & CO.

BALTIMORE.

Price of Reaper and Mower combined, $155.
Price of Reaper, $125.



A REAPING MACHINE being now almost universally regarded as a necessary implement to the Farmers, because of the high price of labor at the season of the harvest, and the great importance of the work to be done in a short time, they should investigate carefully the principles of different machines, as well as the points of difference in them.

McCormick's Machine is adapted and warranted to cut all kinds of Grain and Grass in the very best manner, and as is generally well known, operates with a sickle edge and reel combined with a seat or stand for the raker, so that the grain is delivered at the side of the machine, and the binding made entirely independent of the cutting. It is simple, of light draught, not liable to get out of order, and the sickle will cut 100 to 300 acres of grain without a second grinding.

That the "*sickle*" is the true cutter, no longer admits of a doubt, while the *reel* is indispensible to the successful operation of the machine. Some of the advantages which the sickle-edged has over the smooth-edged Cutter, are, that it will not clog while operating, is much easier in its draft, and does not require the horses to be driven faster than their natural gait, to work well and cut clean.—These are important considerations, and where the two principles (the sickle edge and the smooth edge) have been fully tested, a very decided preference has been given to the sickle edge, as was the case in Europe, where a fair trial was had before an impartial jury, selected by impartial men, which resulted in the award of the *Great Medal* of the World's Fair to McCormick's Reaper, with the sickle edge, over all others.

But should any cases of doubt in the minds of purchasers still be found, as to which is the best, the sickle or the smooth edge, let such try both, until satisfied, and keep the one preferred.

The McCormick Reaper will be sold by E. Whitman & Co. this season, under a written guarantee corresponding with the above recommendation, a copy of which will be furnished on application by mail or otherwise, and those wishing to procure the best Reaping Machines, will find it much to their interests to examine well into the matter before purchasing.

E. Whitman & Co. having had fifty of these Machines pass through their hands last year, are in receipt of letters from nearly all those who purchased and used them, some of which we have annexed, and which show conclusively the high estimation in which these machines are held by those who are best capable to judge.

LAUREL GUN, July 17th, 1851.

Messrs. E. Whitman & Co.

Gentlemen:—Yours of the 10th inst., enquiring the success of McCormick's Reaper I have just received, and will give you as near as possible an account of my operations.

I received the Reaper on Thursday—Friday put it together, and had a good deal of difficulty, never having seen but one before, and that a very old one—Saturday, 14th, started it to work, and finished my crop of wheat on Friday, 27th inst, having cut from 160 to 180 acres guanoed wheat with the Reaper. On Thursday, 19th inst. went into corn-field and did not use the Reaper; so you see I cut in eleven days, from 160 to 180 acres wheat, including rain, &c., &c., an average of 16 1-3 acres per day, although I did not work it more than three whole days, not having hands enough to keep with the Reaper and cradlers. During this time I moved it twice from Mt. Pleasant to Laurel Gun farms—a distance of five miles. The team used was medium sized mules—a pair worked three hours, and then changed—Had I been pushed, I should have worked four instead of two.

Before this harvest, I have always been pushed for time and a great deal of my wheat dead ripe before I could get it down. This year, (although the largest crop of wheat I ever had,) with "McCormick's Reaper," and three or four cradlers, I have cut 225 or 250 acres of wheat—have saved it well, and have not been pushed at all, as you see I stopped a whole day, and went into my corn. I generally cut about twenty acres, when we worked it all day, although I am certain I could have cut thirty.

But the beauty of this Reaper is in the great saving of wheat, especially rank wheat. I candidly believe that the Reaper has paid for itself in my present crop of wheat, to say nothing of the saving of labor; had I not purchased a Reaper, I should have had to pay $50 or $60 for cradlers; as it is, I have not paid a dime, and my Reaper as good as it was the day I purchased it, although I cut over hill sides, water furrows, &c.

Wishing McCormick all success, I remain your friend, &c. Signed, JOHN W. FALCONER.

Near Upper Marlboro', Pr. Geo's. Co. July 16, 1851.

Mr. E. Whitman—Dear Sir: I have your favor enquiring as to my success with M'Cormick's Reaper, one which I purchased of you for my harvest of the present season.

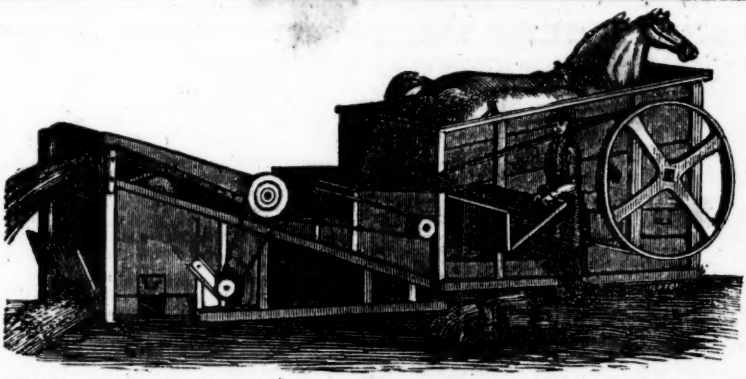
In reply, it gives me pleasure to say, that the Reaper has in every respect proved satisfactory—it saves the wheat with facility and cleanness, and has in every respect with me, been a labor-saving machine. Respectfully,

Signed, LEVI OSBOURN.

J. M. SMITH, Esq., of Heathsville, Va., 16th July, 1851, in a letter to E. Whitman & Co. says, in reference to M'Cormick's Reaper:

"I have directed the bearer, Capt. Dobyns, to call and pay the balance due you for M'Cormick's Reaper, as I am now perfectly satisfied with it, and consider it the most perfect piece of machinery I ever saw in operation. I expect to order another one next year." Respectfully, yours,

Ap. 1 Signed, J. M. SMITH.



E. Whitman & Co.'s Premium Wrought Iron Railway Horse Power,

which received the highest honors of the Maryland State Agricultural Society, at its exhibitions held at Baltimore in 1849, 1850 and 1851, and stands unrivalled in all parts of the world.

Farmers need no better proof of the value of this invention, than to know the fact, that *dealers* who a few years since strongly condemned these Powers, are now manufacturing an article in imitation of them—and some, we have understood, go so far as to call them the same as E. Whitman & Co.'s Wrought Iron Railway Powers.

But farmers who intend to purchase the *original* and *genuine* Wrought Iron Railway Power, which received the highest honors at our State Fairs over all others, can only procure them on application to E. WHITMAN & CO., as no one else in the United States has them for sale. Price $100. Ap.1

E. Whitman & Co.'s Premium Iron Thrasher, the cylinder of which will last 100 years in constant use.

It is a common remark by those using this machine, that no man would use any other if he knew the great advantages of these.

They are perfectly safe, break less grain, run light and thresh clean. The boxes, journals, frame and teeth are stronger and more durable than any other Thrasher in use, and the cylinder can never be broken or worn out.

When these advantages are known and appreciated, no other machine will be sold at any price.

200 of these Thrashers will be offered for sale this season, all built in the strongest and most perfect manner. Prices, $45, $50 and $60. Ap. 1

$50,000 AGRICULTURAL IMPLEMENTS!!

Were Exhibited at the MARYLAND and PENNSYLVANIA STATE FAIRS, held in October, 1851. These Fairs being open to competitors from all parts of the world, brought together the largest display of Farm Implements ever witnessed in this country, among which were to be seen Implements from all parts of the United States. After several days strict examination, the following awards were made, viz: by

The Maryland State Agricultural Society

To E. Whitman & Co.

Certificates of Premiums for their WROUGHT IRON RAILWAY HORSE POWER and Bamborough Wheat Fan, being the Society's HIGHEST honors, they having taken the First Premiums THREE successive years.

For the Largest and Best Display of Useful and Valuable Agricultural Implements,	$30
For the Best Portable Hay Press,	25
" " Farm Wagon and Harness,	13
" " Cart and Cart Gear,	9
For the best Portable Smith's Forge,	$6
" " Corn and Cob Crusher,	5
" " Butter Churn,	4
" " Corn Sheller,	4
" " Plow,	5
" " Hydraulic Ram,	3
" " Chain Pump,	2
" " Hogs Trough,	3
" Drain Tile,	2
For Premiums in Ploughing Match,	14

The Pennsylvania State Agricultural Society, at Harrisburg, awarded to E. Whitman & Co. the following Premiums, viz:

For the Best Portable Hay Press,	$20
" " Sweep Horse Power,	10
" " Reaping Machine,	10
" Largest and Best Display of Useful and Valuable Agricultural Implements,	20

The Maryland Institute, in 1851, awarded to E. Whitman & Co. for their Iron Cylinder Thresher and Wheat Fan, a heavy Silver Medal.

The above result shows conclusively, that their implements are regarded as being the best and most valuable, the amount in premiums being three times as much as any other Exhibitor of Implements. mh. 1

Bones Dissolved in Sulphuric Acid.

HAVING every facility for Dissolving Bones in Acid, and being engaged in the manufacture of acid upon an extensive scale, I am prepared to Dissolve Bones, as directed by Dr. Jas. Higgins' (State Agricultural Chemist) 2d Annual Report, page 33, to which I respectfully refer. He there states (in speaking of the "Quantity and Cost per acre): "The proper quantity of Dissolved Bones, as near as I can know from all the information I have upon the subject, is about five bushels, to be sown broadcast at the time of sowing or planting the crop. The cost, exclusive of labor, which is but slight, will be, of

Bones, 5 bushels, 250 lbs. at 50 cts. per bushel, ...$2.50
Sulphuric Acid, 85 lbs. at 2 1-2 cts. per lb..... 2.07

$4.57

Or, at most, five dollars per acre. This will, in every instance, if judiciously applied, produce an increase equal to the above sum in every crop for four or five years, and then leave the land much better than before the application. To those who are in the habit of manuring fields with stable manure, this quantity added will enable them to dispense with an amount of stable manure double in price to the above, make its action more permanent, and produce better crops. It should, in every instance, be thoroughly mixed with the manure before being applied. I offer this suggestion particularly to those who are in the habit of gardening in the neighborhood of our cities, and to whom the cost of hauling stable manure is very great."

The subscriber will furnish the above quantities of *Burnt* Bones, (which contain more Phosphoric Acid than Ground Bones, according to Professor Johnson's Agricultural Chemistry) dissolved in 83 lbs. Commercial Sulphuric Acid, of the strength mentioned by Dr. Higgins, for $4.50 in bulk, or $4.75 in barrels, *guaranteed* to be perfectly pure and genuine.

By purchasing the article thus prepared, farmers *are saved the expense of carboys, dangers and cost of transportation, &c.*

P. STOCKTON CHAPPELL,
(Successor to P. S. Chappell,
Office—165 Lombard street,
Ap. 1 Factories—Cross and Great Hughes sts.

TO FARMERS.

ANIMAL BLACK.—100 tons of this valuable Manure, (being the residue of the manufacture of Prussiate Potash from Animal Matter) containing *Sulphate of Potash*, Sulphate of Soda, Carbon, &c., as per analysis of Professor Booth, Phila., the copy of which can be seen on application at my office. P. STOCKTON CHAPPELL,
Ap. 1 Office, 165 Lombard street.

The thorough-bred Horse and Premium 3 year old of 1850,

BEVERLY.

HAVING procured a most experienced groom (old Kell), and failed to get my full price for BEVERLY, he will make his first season, commencing 1st of April, and ending 25th of June—at Leonard Town on Mondays and Tuesdays, Great Mills or Clifton Factory on Wednesdays, St. Inigoe's on Thursdays, and on Fridays, returning home on Saturday of each week during the season.

He will cover mares at the very low price, considering the fine size and high blood of the horse, of $15, payable by $10, if made during August Court; $30, insurance—insurance forfeited, if the mare is parted with. No liability for accidents, and 25 cents to be paid to the groom for each mare put.

DESCRIPTION AND PEDIGREE.

Beverly is a rich dark bay, upwards of sixteen hands high, of fine points and form for action and durability. His sire, Antrobus, by imported Priam, out of Aurora, the dam of winners of stakes, &c., of the stud of Wm. H. Tayloe, Esq. of Mount Airy, Virginia.—His dam, Ellen Hooe, by imported Margrave, out of Lady Culpepper, by Carolinian, (son of Sir Archy,) out of a full sister of those renowned horses Defiance and Revenge, by the distinguished Florizel, (sire of the grandam of Boston, the champion of the American turf.) By tracing the full pedigree in the American Turf Register, vol. 3d, pages 103, 254 and 584, and such books, the public will find that Beverly combines the best blood of England of late years, such as Priam and Margrave, (Derby and St. Leger animals—renowned, too, for their descendants,) and descended from the most renowned horses of our own land, such as Sir Archy and Florizel, near lineal ancestors of the unsurpassed Boston; and breeders may expect large, active and durable colts, instead of inactive, open built, or meaty chumps, worth, really, for active service, less than the price of the season. Mares from a distance will be taken care of at Leonard Town on the usual terms—free pasturage, and grain, if required, at market prices; but no responsibility for accidents or escapes. H. G. S. KEY.

LEONARD TOWN, March 11, 1852. Ap. 1-2t

Caveat Entered Dec. 20th, 1851.

TO MAKE 2 OR 3 BUSHELS WHEAT AND CORN GROW, where but one grew before, and to Fatten 2 or 3 Cattle and Sheep instead of one, are objects to interest all Farmers, Feeders and Machinists are requested to call at No. 95 LIGHT ST. WHARF, where the plan will be demonstrated, and a Machine to facilitate the operation can be seen and purchased from a

feb. 1 PRACTICAL FARMER.

CHEMICAL MANURES.

Kettlewell's Agricultural Depot, Baltimore.

THE undersigned begs leave to remind the Agricultural community, that he is prepared to furnish them with his FERTILIZING SALTS, a chemical compound that experience has shown to be the best SPRING MANURE now offered to the public. His challenge to Guano as a Corn Manure still remains unaccepted. For a Corn or Grass crop he is willing to test his "RENOVATOR" with any Manure known to the age. The experience of our most enterprising agriculturists bear this testimony in abundant certificates, which he will cheerfully forward to any one who wishes to try the experiment, or who desire information upon so interesting a subject.

His BIPHOSPHATES—pure bone-dust dissolved in sulphuric acid—is one of the most prompt and durable Manures known to the age.

His Mixture of "POTASH AND PLASTER" has met with universal favor, supplying the soil with these two valuable elements, almost indispensable to a corn crop. His "GROUND PLASTER" has been so generally approved, that he only feels it necessary to repeat that it shall never fall below the standard he has adopted. All applications for pamphlets will be promptly responded to, with certificates from names that will command respect, and rebuke any intimation of either "humbug or imposition."

The undersigned again repeats that he will forward to all persons who desire and request it, a pamphlet containing a full description of all the elements of which his Chemical Salts are composed, with Certificates annexed from gentlemen whose success and enterprise have made them universally known as agriculturists. He also begs leave to refer, and asks attention to the following letter from Dr. David Stewart, more particularly referring to his mixture of "Potash and Plaster," designed for the Renovation of Worn-out Tobacco Land, as well as for the growth of the plant. Upon all subjects relating to Agricultural Chemistry, or Chemistry as a science, higher authority cannot be found in this country than that of this gentleman. All who know him, will cheerfully confirm this declaration.

Independent of this authority, the undersigned has been cheered by a demand so far this season, more than double that of any former one, since he commenced his enterprise four years ago.

Biphosphates, $4 per bbl.
Renovator, $3 per bbl.
Potash and Plaster, $2.50 per bbl.

JOHN KETTLEWELL,
Office, corner of Lombard and Hanover sts.
Factory, Federal Hill, Baltimore, Md.

To Mr. John Kettlewell—DEAR SIR:—You request my opinion of a compound of Potash and "Plaster," (sulphate of lime) as a manure for Tobacco Beds? I will give you the best authority in the world for its use. The ashes of the fresh leaves of the Tobacco plant may be distinguished from the ashes of almost all other plants, by the large proportion of Potash they contain.—Sulphuric Acid, Lime and Potash, compose sixty-three per cent of all the food of this plant (that it derives from the soil). It is estimated that there was removed from every acre of cultivated land in Virginia, twelve thousand lbs. of alkalies, during the first century of its civilization.

From the analysis I have made of your "Renovator," I should suppose it would be admirably adapted as a dressing of the tobacco *field*: all of the following elements of the ashes of Tobacco exist in the Renovator. If however the proportion of any of them in the soil is relatively greater, it would of course be good policy to save *it*, and

substitute more of the rest, (where the order is sufficiently large to justify the special manufacture.)

I have just been reading a letter of the celebrated Baron Liebig, dated Giessen, May 14th, 1851—in which he says:

"I have, for 3 years past, on about 12 acres of the most barren soil near Giessen, by the use of a mineral manure, composed on the same principles, obtained, for all the crops which are cultivated in the district, results, which were declared, previous to my experiments, *to be impossible, by all the agriculturists who knew the land.*" * * * *

Seventy parts of the ashes of fresh leaves of Tobacco contain—

Sulphate of Potash,	4.8
Potash as Chloride of Potassium,	6.3
Potash (or Potassa,)	9.5
Lime,	24.2
Phosphate of Lime,	16.6
Silicic Acid,	08.8
	70.2

Respectfully, DAVID STEWART, M. D.
March 20, 1852. 77 N. Eutaw st., Balt.

Extracts from the letter of Robert Chisolm, esq., of Beaufort, S. C., to J. Kettlewell, late Kettlewell & Davison, in reference to his Chemical Salts.

(Copy.)

NEAR BEAUFORT, January 10, 1852.

Dear Sir:—I suppose that you would be glad to hear from the results of my trials with your Renovator the past year, and I am happy to say to you that I have been quite pleased. As the past summer also, was, I thought, quite too dry to give your Renovator a fair chance, I took no account of my experiments by weight or measure, as I should have done had I thought differently. My first experiment was upon the yam variety of the sweet potato, the tubers for seed—The land was the best for this exacting crop that I have, (and very good) rested one year unpastured after cotton manured. Two furrows of Davis' horse plough were run, making what we call a "list." Upon six of these rows 150 feet long, the Renovator was spread at the rate of 3 barrels per acre, without any other manure, and upon the rest of the field (12 acres,) in this crop, compost, made in my stable and stable lot, was spread at the rate of 40 loads, half drawn by two oxen, and half by four oxen, about a quarter of a mile, per acre of 300 by 150 feet; seed, preparation, cultivation and every thing were exactly the same, and when the potatoes were dug, five of the rows dressed with the Renovator yielded rather more than one of these rows and five rows dressed with the compost, just by the side—three barrels may appear a large dressing, but forty ox-cart loads of good compost, are not either a light or cheap application. On Cotton, I took one line 105 feet wide by 420 long, through a field of poor, cold, stiff clay soil, manured at the rate of 20 ox-cart loads of fair compost per acre, hauled a very short distance; the first 105 feet square was dressed with ½ barrel of the Renovator; the next quarter acre had no manure, the third had another half barrel Renovator, and the fourth had also nothing. One row 5 X 105 was sown with Shinney peas. The result is that the 2 quarter acres, manured with the Renovator have the cotton so much better grown, and better fruited than even the lands on both sides, manured with 20 loads of compost, that the difference is very apparent even to-day, though the cotton has been killed two months. I tried it on my other cotton plantation, which is fresh water (this one being near the ocean,) and with similar results.

I saw in the summer some cotton manured with Guano at the rate of 200 lbs. to the acre, and thought it decidedly a failure, but the planter informed me lately that at the end of the season it had improved very much.

My present overseer spent a part of the summer near another planter, who tried Guano pretty largely, and he does not report at all favorably of it. I showed my cotton experiment to him, and he fully agrees with me in its very marked benefit.

The one row of peas did nothing, most probably owing to the too dry season, as the same was the case in other very rich lands. I think that the past season was too dry for almost any manure, especially a concentrated one, to have its full effect; but the Renovator certainly proved highly satisfactory on Cotton and Potatoes.

I am so much pleased with the results of my experiments, that I intend to use as much of the Renovator as prudence will justify me in buying.

* * * * * * * * *

What is your price per ton per 100 to 200 bbls?

[Signed,]

Ap-1t. ROBERT CHISOLM.

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vicinity, and which, with our recent improvements, in its adaptation and application to our Horse Power Machinery, places it the first on the list of Rack and Pinion Powers.

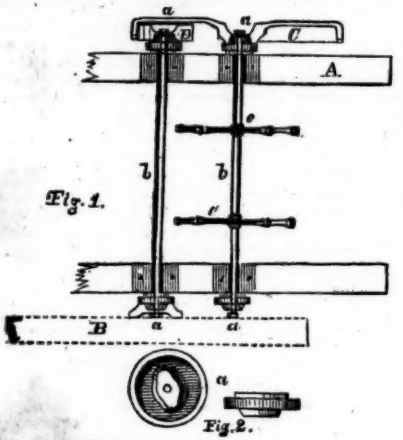


Fig. 1.

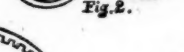


Fig. 2.

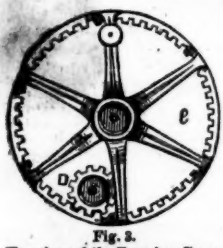


Fig. 3.

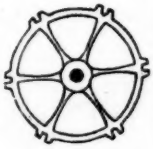
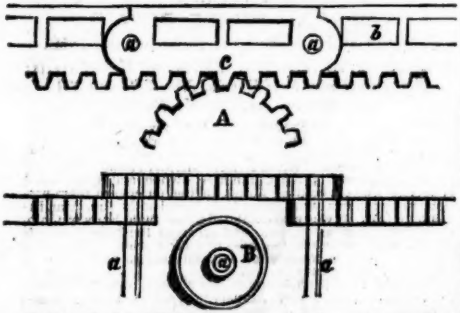


Fig. 4.

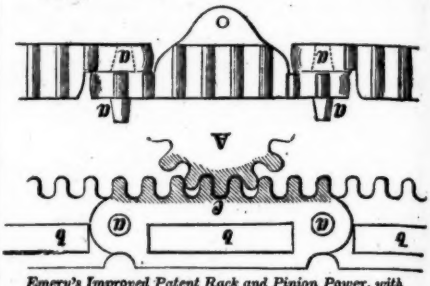
Top view of the Running Gear, and a portion of the frame work of H. L. EMERY'S Patent Changeable Railroad Horse Power.

Fig. 1. A, A.—Main sills or timbers of the power supporting the shafts.
B.—Band pulley upon one of the shafts.
D.—Pinion, or small gear, upon the same shaft with pulley.
C.—Converge or internal gear upon the main shaft, and working into and over the pinion.
b.b.—Main and counter shafts of power.
c.c.—Reels upon the main shaft, which support the endless flooring in its circuit, and carry the shaft.
a.a.a.a.—Couplings upon the ends of the shafts, fitting all the pullies and gears.
Fig. 2. Shows a side and edge view, (enlarged,) of the couplings.
Fig. 3. Side view of converge or internal gear and pinion.
Fig. 4. Side view of one of the two reels, c.c., on the main shaft.



Common Rack and Pinion Power, as manufactured by ourselves, Wheelers and others.

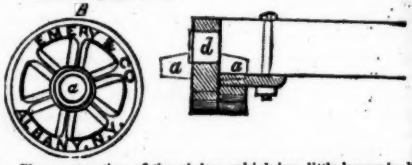
B.—Side view of one of the 72, (or 36 on each side,) small truck or friction wheels, which traverse with the endless flooring—being about 3 3-4 inches diameter.
C.—Side view of one of the 72, (or 36 on each side,) links or segments of the chain, each of which are six inches long, as seen connected with others. a.a.a.a.—The eyes of the links and small rods crossing the power and extending through the links, and far enough outside to receive the small trucks.
A.—Side view of a section of one of the pinions or small cog wheels, two of which are placed upon the main shaft, and receive the motion and force from the cogs on the links of the chain. This pinion is about four and a half inches diameter, and the band pulley is used upon the same shaft, which for threshing, is four feet diameter. The lower view represents the teeth or cogs, as seen with links inverted.



Emery's Improved Patent Rack and Pinion Power, with Epicycloydal Teeth.

c.—Shows a side view of one of the links or sections of the chain, of which there are but sixty, or thirty on a side, and are each seven inches long; every alternate link is cast with dowels, a.a.a.a.a.a., projecting each side; those on the inside connecting with the other links, while those on the outside receive the truck wheels, thus avoiding the necessity of the small shafts, and expense of fitting up. The eyes of the links and truck wheels are cast upon steel chills—making a perfect, and hard smooth surface, which will not wear or break—while the dowels are sufficiently large and strong to withstand more than the cogs themselves.

The lower edge of each link is widened equal to the face of the pinion, and the cogs made to extend the whole width of the pinion, as shown in the lower cut, representing the link inverted, presenting double the strength and driving surface, as shown in the last kind; every alternate link is confined to the plank flooring, by a small screw bolt passing through a flange upon the inside of the link, and under the plank itself.



A.—Shows a section of the pinion, which is a little larger in diameter than the last—the teeth of which are epicycloydal in form—as are those on the links working into them—which is acknowledged by all mechanics and engineers to be the strongest and most perfect form of teeth, and works with less friction and wear, as the driving surfaces present to each other a rolling, instead of sliding friction; this kind of teeth, on account of their rounded form, work much deeper into each other, and have little or no inclination to lift out of gear.

The last cut shows the construction of the truck wheels, which are 1 1-4 inches larger in diameter, and revolve on larger circles at the ends of the power—giving them an advantage over the smaller wheels. A section of a link is shown with the end of the flooring attached; these planks are all one inch wider, and consequently wear up by use much closer, before bending or breaking under the weight of the animals. As a Rack and Pinion Power, the latter has every advantage over the common kinds in use; is manufactured at a less cost; is equally strong and durable, and is more easily handled, as its weight is some two hundred pounds less.

Either of the above kinds of powers are offered to the public, each upon its own merits, with a full warranty as to workmanship, materials, and operation, (and with a guarantee of right of using in all parts of the United States,) subject to be returned within three months—and purchase money refunded. For prices, &c. see Illustrated Catalogue, furnished gratis on application, or by mail.

The first on the list is the highest in cost, and is found preferable in all cases, and under all circumstances. The power of the revolving platform being applied to the main shaft, by means of reels with larger diameters than the pinions used in the Rack and Pinion powers, the stress upon the several parts is in no way as great—and the liability of wear or breakage, from use or

accident, is removed. The whole of the gearing consists of less than one-seventh the number of cogs in the Rack and Pinion Power; and these are wholly removed from under the horses to the outside of the power—free from dirt, dust, &c., and always easily kept in order or cleaned, which is an advantage over all Rack and Pinion Powers. This power has also the advantage of the changing of force and velocity to accommodate it to any variety of work, without any additional cost or danger to the gearing or other parts. When the main shaft runs but fifty-six revolutions per minute, the diameters of the gears are such as to increase or decrease the velocity to two hundred and twenty-four, or as slow as fourteen revolutions per minute, when the animal, (either horses or oxen,) walk but two miles per hour—being about two-thirds the travel which is necessary with the Rack and Pinion Powers, to produce the same effect. This last fact is one of its principal features, and of the greatest importance to the farmer. The gearing, as well as pulleys and couplings, all agree, and can instantly be transposed—each to each, and side to side. In this power the centers of motion of the gears are always in the same position to each other—requiring no guard or binding track over the chain above the pinions, to keep the gears together, as is absolutely necessary with all rack powers, and which serve to check the force of the power; and as the driving faces of the teeth on the rack and pinions become worn off, the loss of force increases, until they eventually stop, break, or slip by each other. The length of the sections or links of the chain, as also the width of the planks of the flooring, are same as in the Improved Rack Power last described. With the above advantages, together with the epicycloydal form of teeth, adopted this season in its construction, the superiority of this power is readily seen.

This power is admirably adapted for driving Threshing Machines, Circular Saws, Cotton Gins, as also Machine Shops, Elevators, Ferry-boats, Discharging and Loading Vessels, Pile-driving, Cross-cut Sawing, Pumping, Grinding Grain, Churning Butter, Cutting Hay and Stalks, Shelling Corn, Grinding Apples, &c. The angle of elevation necessary to operate this power, is never greater, but often less than either of the others here described, and which is inside of one and a half inches to the foot, with horses weighing 1000 pounds each, and without any harness. It has also an admirable arrangement for adjusting and tightening the chain, *not possessed by either of the others*—together with an improved brake for stopping the whole instantly—all within the power, and independent of the band and pulleys, and does not require to be changed, when gears and pulleys may be. The pulley used for threshing, with this power is but three feet diameter, to effect the same as a four foot wheel does with the Rack and Pinion Power.

In all cases the shafting of all machinery manufactured by us is made to run in Babbetted Boxes, they being the most durable and perfect box in use—and not generally used by other manufacturers. Ap. 1

Bamborough's Celebrated Wheat Fan.

THE SUBSCRIBER has had awarded to his PATENT GRAIN FANS, 44 FIRST PREMIUMS and 7 SILVER MEDALS. Its celebrity is so well established, that it is hardly necessary to advertise it before the public—but he would inform the farmers and planters of Virginia, North and South Carolina, and all Southern and Western States, that he is now prepared to fill orders for 1000 Fans. He has been in the business for 20 years, and as his attention is confined to the manufacture of Fans only, in his establishment; the natural conclusion must be, that every attention will be paid to their construction, to insure the most perfect and well made Machine—and I will warrant my Fan to excel any other in the U. S. Please send orders early.

Patent rights for the manufacture of this Fan, will be sold for every State except Maryland. 100 trusty Agents are wanted to sell rights.

Eleven premiums have been awarded this fall to the Bamborough Fan, at the several State Fairs of N. York, Maryland and Pennsylvania, and at the County Fairs where it was exhibited—also at the grand exhibition of the Mechanic's Institute, held in the new Hall in Baltimore, where a Silver Medal was awarded it—and at the Talbot Co. Show.

I offer $5000 to any person or persons who will prove satisfactorily, that my Patent 44 First Premium and 7 Silver Medal Wheat Fan, is not the best in use in America. 1000 recommendations can be given if necessary. I refer to a few, Chas. B. Calvert, Washington, D. C.; E. Whitman, Jr. & Co. Baltimore; Mr. Sands, editor of the Farmer, Baltimore; E. B. Addison, Alexandria; Tho. Branch, Petersburg, Va.; Branch T. Hurst, Petersburg; Jno. Rowlett, do.; H. M. Smith, Machinist, Richmond; Seth March, Norfolk, Va., and thousands of others if necessary. If you wish to get the genuine article, direct to me at Lancaster City, Pa., where I reside. Be cautious not to buy any Fans of the pedlars and hawkers who are going around with fans in Va. and other States, telling the farmers they are my Fans, or as good as mine, and endeavoring thus to palm them off. And some are making fans in Virginia, infringing on my patent, and hawking them about; farmers must be cautious how they purchase of such, as the user as well as the vender is liable to me for a violation of my right. None are genuine except those lettered "Bamborough's latest improved, patented March 20th, 1847, 44 Premiums and 7 Medals awarded."

I will deliver them in Baltimore at the following prices: No. 1 extra, $32; No 1, $31; No. 2, $29, cash.

JOHN BAMBOROUGH, Patentee,
Lancaster City P. O., Pa.

THE GREATEST TRIUMPH YET!

At the State Agricultural Fair of New York, held at Rochester, Sept. 16 to 19, 1851, Bamborough's Grain Fan received the highest honors—being a splendidly engraved diploma, signed by J. Delafield, President, and B. P. Johnson, Sec'y of the State Society, and a volume of the Transactions of the New York State Agricultural Society, signed by the same officers. This was the greatest Fair ever held in the United States, there being about eighty-thousand people present, and the display of Agricultural Implements exceeding all previous exhibitions—among which Bamborough's Fan stood pre-eminent, as was unanimously admitted by the thousands who examined it.

This was a glorious triumph for John Bamborough and old Pennsylvania, over the best Grain Fan of New York.

ANOTHER TRIUMPH!

At the first Pennsylvania State Agricultural Fair, held at Harrisburg, October 31st, after a close trial, and in which, I am credibly informed, the other windmill makers conspired to prevent my 44 Premium and 7 Silver Medal Awarded United States Patent Fanning Mill from taking a Diploma, I was awarded 2 Premiums—one for my model, and the other for the Large Mill. The committee, in their report, say it was a complete article. Signed Frederick Watts, Prest., and Robt. C. Watkins, Sec'y.

The 30,000 persons who attended the Fair, said my Mills were the best they ever saw.

At the 4th Annual Exhibition or Cattle Show of the Maryland State Agricultural Society, at Baltimore, Oct. 24, 1851, there were about 34 Grain Fans on the ground. After a fair trial by a competent committee, mine was declared entitled to a certificate of pre-eminence over all others—having taking the first premium at former meetings of the same Society. Signed, Chas B. Calvert, Prest., and Saml. Sands, Sec'y.—The 40,000 who attended this Fair admitted that my United States Patent Fans were superior to any other. This is not only the sentiment of the crowds of people who attended that Fair, but the unanimous opinion of the people at all the Fairs that it has been exhibited at, which is 44, and it has had 44 Premiums and 7 Silver Medals awarded it. jan. 1-2t

Grant's & Bamborough's Wheat Fans.

GREENWICH, N. Y. March 4, 1852.

Mr. Samuel Sands—

DEAR SIR:—I noticed in your January number of the American Farmer, an advertisement signed John Bamborough, which is intended to mislead the public, and do great injustice to Mr. Grant. It is as follows:—*The greatest triumph yet, at the State Agricultural Fair of New York, held at Rochester, Sep* 16 to 19, 1851—*Bamborough's Grain Fan received the highest honors, being a splendidly engraved Diploma.* In Justice to Mr. Grant and the public, I will, as one of that Committee, make the following statement of facts: The first premium of five dollars was given to J. Rappleye & Co. of Rochester, on J. P. Grant's Patent Grain Fan, that will chaff and screen wheat at one operation. The diploma, or second premium, was to John Bamborough, for his Mill, that takes two operations to clean wheat, as acknowledged by himself at that time. (Then he says again:) *This was a glorious triumph for John Bamborough and Old Pennsylvania, over the best Grain Fan of New York.* Now you will perceive that this is false, and not true, and you will, in justice to the Public, as well as Mr. Grant, give the above an insertion in your paper. The above report was a unanimous report of the Committee.

Respectfully yours, WALDEN EDDY,
One of the Committee on Agricultural Implements at the above named Fair.

NOTE.—E. Whitman, & Co. are our authorized Agents in Baltimore, for the sale of our Premium Wheat Fans, to whom orders can be addressed, and will be promptly filled. J. F. GRANT & CO.,
ap 1-4t. New York.

ROBERT B. PORTER,

(Successor to John Buck, Jr.)

IMPORTER OF HARDWARE,

AND dealer in Bar Iron, Steel, Castings, Springs, Axles, Mill, Pit, Hand and Circular Saws; Axes, Hatchets, Wrought and Cut Spikes and Nails; Patent Horse Shoes, Anvils, Vices, &c. Agent for Rees & Hoyt's Premium Leather Bands, Goodyear's Metallic Picking—Gilden's Foundry and Smiths' Bellows, for sale on best term at
mh1 No. 58 PRATT STREET, BALTIMORE. 3t

Hussey's Reaping and Mowing Machine.

FARMERS who are disposed to trust to the great Medal humbug for a recommendation, will please read the following extract from the Darlington and Stockton Times, (English paper,) Oct. 11th, 1851, of the proceedings of the Barnard Castle Agricultural Society:

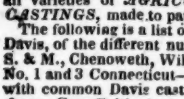
"At about 3 o'clock in the afternoon, a large party sat down to a sumptuous dinner at the King's Head Inn. Lord Harry Vane presided, and the Rev. W. F. Wharton occupied the vice-chair. After dinner the usual loyal toasts having been proposed, the Vice-chair proposed the health of Mr. Hussey; that gentleman, he said, had contributed to their gratification and interest in bringing his invention there for trial; the result of that trial had exceeded everything they could have previously imagined or hoped; and therefore he begged they would excuse him for proposing this health so early, as Mr. Hussey and his agent's representative, Mr. Pierce, had to leave by the first train from Darlington, which they had then but sufficient time to reach. He proposed the healths of Mr. Hussey and of the enterprising firm, Messrs. Dray & Co., who had undertaken to bring that machine into the British market. The toast was drunk with honors.—Mr. Hussey briefly returned thanks.

After some further proceedings, the Vice-Chairman proposed the health of the President. Lord Harry Vane responded.

"The healths of the Vice-Presidents were proposed. Mr. Mitchell briefly responded. Mr. Wharton in acknowledging the toast, took the opportunity of again bringing before the meeting the merits of the invention which had been the object of that day's attraction. It had been most unfortunate that when the trial took place for the prize of the great exhibition, Mr. Hussey had not arrived in this country—nobody knew how it was managed, whilst M'Cormick's wos properly attended to. Mr. Hussey's machine did no work, and Mr. M'Cormick took the medal. No sooner did Mr. Hussey arrive than he prayed for a further trial, but the Jury could not grant it. All difficulty was removed by Mr. M'Cormick throwing down the gauntlet. The trial came off in Cleveland—the result was clear and satisfactory in favor of Mr. Hussey's machine as decidedly superior. Mr. Thompson, of Moat Hill, one of the Great Exhibition Jury, was also one of the Judges in Cleveland, and was so satisfied on the subject that he left, determined to urge for a medal for Mr. Hussey. It must be a source of pleasure to all, to find that justice was thus about to be done to a worthy, modest and unassuming man."

☞ Unless orders are sent early to the subscriber, in Baltimore, farmers may be disappointed in getting the machine which stands first, not only in this country but in all Europe.

Ap. 1 OBED HUSSEY, Baltimore, Md.



C. H. DRURY, *Hollingsworth street corner of Pratt—Head of the Basin*—having completed his establishment with Foundry connected, for the making his own Castings, is prepared to furnish all varieties of *AGRICULTURAL IMPLEMENTS* and *CASTINGS*, made to part. . of the best material.

The following is a list of PLOWS kept constantly on hand: Davis, of the different numbers, for wrought and cast shears, S. & M., Chenoweth, Wiley, 2 and 3 furrow, No. 0, Hill side, No. 1 and 3 Connecticut—Bench Improved or Posey Plow, with common Davis cast shear—Self-sharpener or wrought shear—Corn Cultivators, plain and expanding—Tobacco do.—Wheat Fans—Corn shellers with double hopper—Old Vertical and Virginia sheller—Harrows—superior Pennsylvania made Grain Cradles—Revolving Horse Rakes—Cylindrical straw Cutters, &c. &c. Horse Power *GRIST MILLS*, a very useful and saving article, and coming into general use. *HORSE POWER AND THRESHING MACHINES*, of these I need not say any thing, as wherever they have been in use any time, they are preferred to all others.

C. H. D. will this year make a smaller size Power & Thresher, (price of Power, $100, Thresher, $50, Band, $10, or when taken together, complete, $150 cash.) Persons in want of Implements made of the best material, and put together in the strongest and best manner to answer the purpose for which they are intended, are invited to call on the subscriber. je1

A. E. WARNER, No. 10 N. Gay st.

MANUFACTURER OF SILVER WARE, FINE GOLD JEWELRY, and importer of BEST SILVER WARE, FANCY ARTICLES, &c. would respectfully invite the attention of those in want of any of the above articles, that he keeps always on hand, and makes to order, every variety of Silver Ware, fine Gold Jewelry, and best quality Silver Plated Ware, which he will sell on the most accommodating terms. Feb. 1-tf

GUANO.

WE are now receiving fresh supplies of PERUVIAN GUANO, from direct importations just arrived and now landing from vessels.

We have also in store a supply of No. 1 and 2 PATAGONIAN GUANO, a very superior article, containing 10 per cent. of Salts of Ammonia and 44 per cent. of Phosphates, recommended by the State Inspector and Chemists as being peculiarly adapted for stiff, clay soils, and which we can sell at a very low price.

All Guano sold by us is weighed and inspected by the State Inspector, and we *warrant* it to be genuine and unadulterated, of the most recent importations, consequently *fresh* and *full weight*.

All orders will receive our prompt attention, and forwarded with accuracy and despatch.

P. MALCOM & CO.

Corner Wood st. and Bowly's wharf, Baltimore.

P. S. We have also in store, pure BONE DUST, manufactured by Thos. Baynes, which we can sell at the maker's prices, and GROUND PLASTER, in bbls. mh. 1-2t

Ground Charcoal.

THIS ARTICLE is universally recommended by all Agricultural Publications, as the most powerful Absorbent and retainer of Ammonia, when imported Guano is mixed with it.—It renders this manure much more durable, besides being itself a good Fertilizer.—To be had at 10 shillings per barrel, under ten barrels, or 9 shillings per barrel, when ten barrels and upwards are taken, including packages, and free from cartage, on board, at 40 Peck Slip, New York, Depot for Kentish's Prepared or Artificial Guano, a fertilizing and valuable manure, of very extensive demand. Price, $20 per ton, of 2000 lbs. Mar. 1-tf.

Circulars of the above company, containing recommendations of the Prepared Guano can be had at this office.

2000 Acres of Roanoke Land For Sale.

THE subscriber having a much larger quantity of land than he can cultivate, and wishing to have some neighbors who may be disposed, like himself, towards agricultural improvement, would sell upon advantageous terms, from 1 to 2000 acres of the well known land of Roanoke River. This quantity would make two good plantations, and might be so divided. To those who may not be acquainted with Roanoke lands, they may be described as being very similar to the *best* lands of the Upper James River—they consist, 1st, of fine chocolate colored "low grounds," admirably adapted for wheat, corn and clover, lie immediately on the River, and are from ¼ to 3-4 of a mile wide. These low grounds are all of pure a luvial soil for several *feet deep*, and are as near being inexhaustible as any lands *can* be. In rear of these are the "second low grounds" lands, very similar in color and general characteristics, but not so rich in alluvial deposite—they are equal to any lands in the U. States for wheat, clover and the grasses, 31 1-4 bushels per acre were measured on 100 acres after a loose gathering; they are also well suited for Cotton, 12 and 1500 lbs. per acre having been made on lands adjacent and every way similar to those of the subscriber, (who does not cultivate cotton.) The natural growth of these lands is composed of the Black Walnut, Tulip, Hickory, Ash, Oak, &c. Still further from the river, lie the "Uplands,"—these are greatly inferior to the low grounds, but produce corn and cotton well, and possessing a fine clay subsoil, when limed produce wheat and the grasses to advantage—their timber growth is Oak, Hickory, Dogwood, &c. The lands run up to within about 7 miles of the point where the Petersburg Railroad and the Norfolk Railroad cross each other; both are laid with heavy T iron, and afford a choice of markets. The river affords a navigation for 8 months of the year, and the subscriber has loaded a sea-going vessel with 6500 bushels of corn in one cargo.

A large portion of the land has been improved by Lime, Clover and Plaster.

There is a new Dwelling House with 8 rooms, new kitchen, new brick smoke house, 40 feet by 20, and a number of frame negro houses. Also, a very extensive Water Power, with a Mill 64x30 ft. running 2 sets of mill stones, a Wheat Thrasher, Chaffing Fan, Elevator, and all the requisite machinery for cleaning wheat; Corn and Cob Crusher, &c. Saw Mill, both circular and up and down saw, &c.

The fall diseases, which formerly so greatly injured the value of lands in this region of country, have for the past ten years almost *wholly* disappeared, and its healthfulness can now be fairly compared with any portion of the U. States, inflammatory diseases being almost unknown.

The price of the land is $12 per acre for the entire tract, with a payment of one-fourth in cash, the remainder in 2, 4, 6 and 8 years, if the security is satisfactory, with interest.—These lands are well known to Mr. Solon Robinson, a well known agriculturist, and to Mr. Obed Hussey of Baltimore—they will be shown by visiting the subscriber in the town of Jackson, N. C., 9 miles south of Garysburg, on the Petersburg and Roanoke Railroad. Apply also to Samuel Sands, Esq., Editor of the American Farmer, or by letter, to

feb. 1-tf H. K BURGWYN, Jackson, N. C.

AGENCY FOR THE PURCHASE AND SALE OF IMPROVED BREEDS OF ANIMALS.—Stock Cattle of the different breeds, Sheep, Swine, Poultry, &c. purchased to order and carefully shipped to any part of the United States—for which a reasonable commission will be charged. The following are now on the list and for sale viz:

Thorough bred	Short Horns and Grade	Cattle		
Do	do	Alderney	do	do
Do	do	Ayrshire		
Do	do	Devons	do	do
Do	do	South Down	Sheep	
Do	do	Oxfordshire	do	
Do	do	Leicester	do	

Swine and Poultry of different breeds.

All letters, post paid, will be promptly attended to. Address AARON CLEMENT,

mh. 1 Cedar st. above 9th st., Philadelphia.

LIME—LIME.

THE undersigned having purchased of E. J. Cooper the most extensive Lime Burning Establishment in the State, is now prepared to supply Agricultural and Building LIME, of superior quality, to farmers and others, on accommodating terms, from his Yard, at the *City Block*, or delivered at the several landings on the Chesapeake Bay and its tributaries, and pledges himself by strict attention and punctuality, and a determination to do justice, to merit a liberal share of patronage. Any orders addressed to him through the Baltimore Post Office, or left with C. W. Burgess & Co., No. 60 South street, one door above Pratt, will be promptly attended to.

feb. 1-1y* JAMES L. SUTTON.

Important to Farmers and Machine Makers.

THE subscriber respectfully informs the public that he has lately completed a TRIPLE REACTING INTERNAL GEARED HORSE POWER, which outrivals any in use.—It is made entirely of Iron, both Frame and Gearing. The Journals are made of Cast-Steel—its weight is 600 lbs. On trial it has proved itself capable of performing from 50 to 100 per cent. more work than other Powers with the same labor of the team. It is warranted to hold 8 horses.

I have also completed a combined THRESHER AND CLEANER, which is capable of Threshing and Cleaning from 300 to 500 bushels of wheat per day, with from 6 to 8 Horses and an equal number of hands.—4 horses can thresh with it from 100 to 200 bushels per day of wheat, and 400 to 500 of oats. It is very convenient for those who follow Threshing, and for two or more farmers to own in company, it is more convenient to move than any machine in use. The Machine stands on the wagon while threshing—the Power is loaded on the same wagon in moving—two horses are sufficient to move it; it will save enough labor in threshing 2000 bushels to pay its extra cost. It will thresh in a field or by a stack as conveniently as in a barn. The cylinder and concave can readily be adjusted so as to thresh with equal facility both tough and dry grain.—it is free from the complication and liability to get out of order of other machines of the kind, and of less cost.

Machine makers supplied on the most reasonable terms. Powers made by wholesale by I. W. Groff, Lancaster. Pa.—Threshers. Machines, &c. made and for sale by Jeffrey Smedley, Columbia, Pa.

All orders directed to the subscriber at Lancaster, Pa., will be promptly attended to. SAMUEL PELTON, Jr.

Also for sale by E. Whitman, Jr. & Co., Baltimore. jy.1-1y

FOR SALE—A FARM of 300 acres, 70 of which is woodland, situated in Talbot county, on Third Haven River, and opposite to the Military Academy at Oxford, being about 8 miles from Easton. The steamboats plying between Baltimore and Easton pass the door.

Few Farms have ever been offered for sale possessing advantages equal to those belonging to this estate. It is now in a good state of cultivation, and such are the inexhaustible resources of the most fertilizing manures, that with comparative small expense of labor it may be made one of the most productive farms of the size in the county. Among the manures which exist so abundantly, there is Marl, Shell Bank, Marsh and Woods' Dirt.

Game, such as frequent these waters at all times during the season. Also from the River, Fish, Oysters, &c. in abundance.

The society of the neighbohood is everything that a gentleman could wish for his family, being in the immediate vicinity of the estates of Col. Nich. Goldsborough, Gen. Tench Tilghman and the Messrs. Bannings.

The DWELLING is a spacious double house, one of the finest in the county, built by one of the best Baltimore mechanics, and combines all the conveniences for a large family. A very excellent tenant House, which in case of a division of the farm into two, of which the place is very susceptible, would answer for a dwelling. Barn, Stables, Carriage Houses, Granaries, &c. &c.

Martin Goldsborough, Esq., who now occupies the premises, will give information to any who may call to see it. The place will be shown to any one by Mr. John Dulin, my present overseer, who resides on the premises; and for further particulars, enquire of

GEO. W. MORLING,

mh 1 No. 259 Baltimore-st., Baltimore, Md.

F. D. Benteen & Co. 181 Baltimore st., Balto.

HAVE FOR SALE a large assortment of MUSIC, and are constantly publishing and adding to their stock all the new and standard publications of the day.

Having rented an additional wareroom for PIANO FORTES, a very large assortment will always be kept for sale, from the best factories in the country, of 6, 6 1-3, 6¾, 6 3 4 and 7 octaves, in rosewood cases, with full metalic frames, from the plainest to the most costly. Among the assortment will always be found the celebrated Pianos of Chickering, Boston, and Nunns & Clark, N. York, both of which makers received gold medals at the World's Fair in London. Also, PRINCE & Co's. ORGAN MELODEONS, intended to supply the place of an Organ in small churches, Seminaries, family worship, &c. Prices $45 and $75.

☞ Orders from the country for Pianos, Guitars, Music or any article in our line of business, will be as fully and faithfully executed as if the parties were personally present.

A liberal discount made to Dealers, Seminaries, Professors, &c. feb. 1-6t

Sandy Point For Sale at Auction.

THE undersigned, prevented by engagements requiring his undivided attention elsewhere, from residing on his farm, will sell publicly, (unless previously sold privately, of which due notice will be given) at the Bollingbrook Hotel, in Petersburg, (Va.) on WEDNESDAY, the 26thday of May next, at 11 o'clk A. M., without reserve or regard to weather, that valuable, highly improved, and heavily timbered estate, known as Sandy Point, situated on James River, in the county of Charles City, Virginia, 45 miles below the city of Richmond, and 32 below the city of Petersburg.

This fine body of land contains 4,453 acres, and has been advantageously divided into four well-located farms, with dwellings, commodious barns, &c., and into five valuable lots of timbered land exclusive of an ample allotment of wood and timber for each farm.

Persons desirous of investing in lands of a quality not often in market, are invited to examine this estate.

Printed bills, giving the quantities in the subdivisions, &c. will be furnished, and accurate plats exhibited to applicants.

Possession given of the timbered lands immediately after sale, of the farms, at the end of the year, with the privilege of fallowing and seeding wheat.

Terms: One-fifth cash; balance in five annual instalments for the farms. For the timbered lands one-third cash and three annual instalments; credit payments to bear interest and to be secured by deeds and approved endorsed negotiable notes or bonds. R. B. BOLLING.

Petersburg, Va. febl-ts. PANNILL & SONS. Aucts.

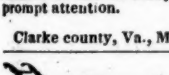
CLIFTON FARM, IN CULPEPER COUNTY, FOR SALE.

THIS very desirable Farm, containing 640 acres, can be bought at private sale upon terms to suit the purchaser. In every respect is this farm desirable; it is fine for grass or grain; a fine stream of water passes through its midst, enough to run a mill, and an abundant supply in every field; a sufficiency of stone for fencing, with which it is partially enclosed, and an abundance of timber. The land lies well, and every foot of it will remunerate judicious cultivation. The buildings consist of comfortable houses for overseer and negroes, barn and other necessary out houses. It is within 6 miles of the Court House, within 1 of a mill and saw-mill, 1 of the Rappahanock Canal to Fredericksburg, and within 2½ of the contemplated depot on the rail-road from Oregon to Alexandria, now erecting, thus having the command of the markets in the District, Alexandria, Fredericksburg and Richmond, by two improvements, whose competition must be very important to the farmer—a healthy neighborhood and excellent society. If the farm is too small, land adjoining it may probably be bought; if too large, doubtless some of the neighbors would be glad to get portions of it; or purchasers can join and divide in three or more good farms. Arrangements can be made, probably, with the heirs, to purchase both the families of negroes on the farm, if desired—they are all valuable. Accommodation will be given the purchaser in every way to his satisfaction. Can any farm hold forth such inducements to purchasers? Mr. Wm. Glassell and Mr. John Glassell, living in the neighborhood, will show the farm to any gentleman wishing to see it. Any communication addressed to me at Berryville, Clark Co., Va., will receive prompt attention. JOSIAH WM. WARE,

Executor of John Glassell, dec'd.

Clarke county, Va., March 18. June 1 2t

TO FARMERS.



THE undersigned, by this method, would apprize the Agricultural community, that he is still engaged in the manufacture of the renowned *Wiley, Empire*, and other choice Plows. He also manufactures and has for sale, a number of the best and most efficient Farming Implements in use. Call before purchasing elsewhere, as his terms are such as cannot fail to please. All implements guaranteed.

☞ AGENTS for the *Wiley, Empire*, Boston, Woodstock, and other Plow Castings. A. G. MOTT.

At the old stand, No. 38 Ensor, street, and at No. 51 N. Paca street, opposite the Hand Tavern, Balt. mh-1.

LIME.

THE subscribers are prepared to furnish Building and Agricultural Lime at the depot on the Back Basin, corner of Eden and Lancaster-sts., which they will warrant to give satisfaction, it being burnt from pure Alum Lime Stone, equal to any found in the United States. Orders may be left with WILLIAM ROBINSON, No. 15 Hollingsworth-street, near Pratt.

tf **FELL & ROBINSON**, City Block.

Bone Dust and Poudrette.

BY the request of my customers, I have made considerable improvement in the machinery for GRINDING BONE, and am now prepared to furnish a fine article, which acts quicker and more powerfully, as I extract no glue from the Bone, or use any Chemicals, leaving the Bone Dust in its natural or pure state, weighing from 55 to 60 lbs. per bushel. The *Poudrette* is as good as can be made, and will be sold low. Apply by letter, or at the Factory on Harris' Creek, Baltimore, Maryland. THOS. BAYNES.

REFERENCE.

D. M. Perine,	Lloyd Norris,	Wm. Baker Dorsey,
G. W. Lurman,	W. B. Stephenson,	W. H. Ross,
J. Q. Hughlett,	J. W. Randolph,	Capt. C. Wright,
J. Tyson, Jr.,	T. Jef. Rusk,	Wm. S. Bond.

N. B. Orders left with the Office of the Farmer will be attended to.

☞ In December and January, I will sell my Bone Dust at 50 cts. per bushel. Oct. 1.

Marks' Daguerrean Gallery,

No. 159 BALTIMORE STREET, over Parr & Banks' China Store, and opposite Butcher's Confectionary,

WHERE the experience of years and the highest honors by the *Premiums* awarded to it by the *Maryland Institute* for successive years, confirm its superiority. All Pictures taken at this establishment warranted correct likenesses or you are not required to take them, and that at prices satisfactory. Particular attention paid to family groups and children. Views of Farms, Horses, Cattle, &c. taken at reasonable charges. Call at the Gallery and look at the specimens for yourselves. feb. 1-1yr.

TO FARMERS.

THE Subscribers have in store, and offer for sale at the very lowest market rates,

PERUVIAN GUANO, imported this season in the Barque Rio.

Patagonian Guano in bags, a very superior article.

1000 bushels Ground Bone, in barrels suitable for shipping.

300 bushels Clean Clover Seed
Ground Plaster in barrels.
Prime Timothy Seed.
Reynolds' Superior Corn Sheller.
Fresh Millet Seed.
Rock Salt for Salting Stock.
Mammoth Corn for Seed.
Fish, Bacon, Tar, Renovator, &c.

They guarantee the purity of all Guano passing through their hands, and every attention given to the proper shipment of articles ordered. Address,

W. WHITELOCK & Co.

mh 4t. Corner of Gay and High streets, Balto.

J. T. WATKINS,

FEATHER BEDS,

CURL-HAIR MATTRESSES,

FURNITURE AND VARIETY STORE, &c.

No. 47 South street,

Between Lombard and Pratt street,

Ap. 1-1yr *BALTIMORE.*

PERUVIAN GUANO.—The subscriber offers for sale five hundred tons Peruvian GUANO, of very superior quality, and warranted equal to any ever imported. This Guano is put up in heavy and well secured Osnaburg bags, which to the farmer is an important consideration.

Agricultural Clubs and individual purchasers will be supplied upon as favorable terms as can be offered by any dealer in the United States. FITZHUGH COYLE,

National Agricultural Warehouse,

feb. 1-3t Seventh street, Washington City.

GUANO—GUANO.

500 TONS PERUVIAN GUANO, direct importation, and *warranted equal in quality* to any in the market. The Guano is put up in good strong bags, and is in fine shipping order. For sale in lots to suit purchasers, at the lowest market rates, by

WM. ROBINSON, No. 4 Hollingsworth st.
near Pratt st. wharf, Baltimore, Md,

Also, PATAGONIA GUANO, BONE DUST, Building and Agricultural LIME, for sale on the best terms. je. 1-tf

THE PRIZE PLOUGHS at the World's Fair, for sale by E. WHITMAN & CO.

mh. 1 Sole Agents for State of Md.

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